

FORM XVI**[See rule 45]****Agreement between Producer and Audio-visual worker**

This agreement is made on this day monthyear..... between Messers..... having office at (hereinafter referred to as the –Producer||) on the first part and Shri/Smt/Kumson/daughter/wife of Shri residing at (hereinafter referred to as the –audio-visual worker||) on the second part. The terms ‘Producer’ and ‘audio-visual worker’ shall include their heirs, successors, administrators and legal representatives:

Now, therefore this agreement is made as follows:

4. That both the parties agree that the duration of this agreement shall be from the date hereof till the completion of the audio-visual and this period shall not exceed consecutive months.
5. That the audio-visual worker agrees to attend studio, location or work place, as the case may be, subject to the requirement of his previous engagement and on his confirmation, to his respective job punctually as and when He/She/she/she shall be required by a written intimation by the Producer or the person duly authorized by him in writing.
6. That in consideration of the audio-visual worker services, as aforesaid, the Producer agrees to pay and the audiovisual worker agrees to receive a sum of Rs.(Rupees) payable as advance on signing of this agreement and the balance of Rs.payable in equal installments.
7. That in the event of the audio-visual production being not complete within the stipulated period and the Producer still needing the services of the audio-visual worker to complete the audio-visual production, the producer agrees to pay and the audio-visual worker agrees to receive additional remuneration on pro-rata basis, payable in the same manner as stated in Clause 3 above, till the completion of the production.
8. That in case the assignment of the audio-visual worker is completed earlier than the period stipulated in Clauses 1 and 4 above, the producer shall settle the account of the audio-visual worker and pay the remaining balance of the agreement amount in full before the commencement of re-recording work/censor of the production, whichever is earlier.
9. That the audio-visual worker shall, if so required,
 - (a) attend the studios, location or work-place, as the case may be, earlier than the a scheduled time of the shift, for preparatory work, and in that case, He/She shall be paid by the Producer extra wages at the rate of Rs.per hour or part thereof for such early attendance.

- (b) continue to work beyond the working day, with one hour break and in that case, He/She shall be paid by the Producer extra wages at the rate of Rs..... for the work during the extended hours and refreshments, and transport facilities.
10. That the Producer shall provide transport and food or pay traveling allowances to and fro to report to duty and food allowance while on duty as are customary or fixed by bilateral arrangements between the Producer's and audio-visual worker's representative organizations.
 11. That the Producer shall also pay for all travelling and accommodation expenses, fares, cost of food and such other allowances as are customary when the audio-visual worker is required to work on location outdoors.
 12. That the Producer shall get the audio-visual worker insured for any injury or damage to his/her person including death caused by accident arising out of or in the course of his/her employment and/or during the period of his/her assignment under this agreement.
 13. That where the Producer is prevented from proceeding with the production of the audio-visual by reason of fire, riot, natural calamity, order of the public authority or any other reason beyond his control :-
 - (1) He/She shall be entitled to suspend the operation of this agreement during the period of suspension of production in case the production is suspended. The producer shall serve notice in writing of such suspension on the audio-visual worker and shall pay all his/her dues up to the date of service of such notice. Upon resumption of work on the film, this agreement shall revive and shall remain valid for the period stipulated in Clause I excluding the period of suspension therefrom ; or
 - (2) He/She shall be entitled to terminate this agreement as from the cessation of production, in case the production ceases completely. The producer shall serve a notice in writing of such cessation on the audio-visual worker and make payment of all the amount due to the audio-visual worker at the time of termination.
 14. That in case if the Producer desires to terminate this agreement before the expiry of its term for reasons other than misconduct in relation to performance of the audio-visual worker's duties or of his/her unwillingness to perform the services required under this agreement, the producer shall be entitled to do so only upon payment of the balance of the stipulated amount of the agreement. Only after such payment to the audio-visual worker, the Producer shall be titled to employ another audio-visual worker in his/her place.
 15. That the Producer shall have the right to terminate this agreement on ground of misconduct on the part of the audio-visual worker in relation to performance of his/her duties or his/her unwillingness to perform the service required under the agreement, upon payment to the audio-visual worker of the amount due at the time of termination, calculated taking into consideration the audio-visual worker's total work in the audio-visual and the work he/she has completed till the date of termination of this agreement. Termination under this clause shall not be made

unless the charges of the Producer against the audio-visual worker are proved before a forum comprising equal number of representatives of the Producers' Organisation and the audio-visual worker's Organisation to which the Producer and the audio-visual worker respectively may belong. The decision of the forum shall be binding on both the parties. The producer can engage another audio-visual worker for the job towards this agreement only after the forum has given a decision in favour of such termination and the audio-visual worker has been paid all his dues.

16. That in case of premature termination of this agreement, it shall be the option of the Producer whether or not to retain the work of the audio-visual worker in the audio-visual and at the same time, it shall be option of the audiovisual worker whether or not to allow his/her name to go on the credit titles of the film.
17. That the Producer shall have the right to decide the manner of representing the audio-visual worker's personality on the screen, his/her clothes, make-up and hair-style and the audio-visual worker shall fully and willingly comply with the direction of the Producer in this regard, provided that the requirements of the Producer in this respect have been notified to the audio-visual worker and accepted by him/her
18. That the audio-visual worker agrees that He/She shall render his/her services to the best of his/her ability in such manner as the Producer or, at his instance, the Director of the audio-visual may direct and shall comply with all reasonable instructions that he/she may give for the production of the film.
19. That the Producer shall also pay for all traveling and accommodation expenses, fares, cost of food and such other allowances as are customary when the audio-visual worker is required to work on location outdoors.
20. That the Producer shall get the audio-visual worker insured for any injury or damage to his/her person including death caused by accident arising out of or in the course of his/her employment and/or during the period of his/her assignment under this agreement
21. That where the Producer is prevented from proceeding with the production of the audio-visual by reason of fire, riot, natural calamity, order of the public authority or any other reason beyond his control :-
 - (a) He/She/she/she shall be entitled to suspend the operation of this agreement during the period of suspension of production in case the production is suspended. The producer shall serve notice in writing of such suspension on the audiovisual worker and shall pay all his/her dues up to the date of service of such notice. Upon resumption of work on the film, this agreement shall revive and shall remain valid for the period stipulated in Clause I excluding the period of suspension there from ; or
 - (b) He/She/she/she shall be entitled to terminate this agreement as form the cessation of production, in case the production ceases completely. The producer shall serve a notice in writing of such cessation on the audio-visual worker and make payment of all the amount due to the audio-visual worker at the time of termination.

22. That in case if the Producer desires to terminate this agreement before the expiry of its term for reasons other than misconduct in relation to performance of the audio-visual worker's duties or of his/her unwillingness to perform the services required under this agreement the producer shall be entitled to do so only upon payment of the balance of the stipulated amount of the agreement. Only after such payment to the audio-visual worker, the Producer shall be entitled to employ another audio-visual worker in his/her place.
23. That the Producer shall have the right to terminate this agreement on ground of misconduct on the part of the audio-visual worker in relation to performance of his/her duties or his/her unwillingness to perform the service required under the agreement, upon payment to the audio-visual worker of the amount due at the time of termination, calculated taking into consideration the audio-visual worker's total work in the audio-visual and the work he/she has completed till the date of termination of this agreement. Termination under this clause shall not be made unless the charges of the Producer against the audio-visual worker are provided before a forum comprising equal number of representatives of the Producers' Organisation and the audio-visual worker's Organisation to which the Producer and the audio-visual worker respectively may belong. The decision of the forum shall be binding on both the parties. The producer can engage another audio-visual worker for the job towards this agreement only after the forum has given a decision in favor of such termination and the audio-visual worker has been paid all his dues.
24. That in case of premature termination of this agreement, it shall be the option of the Producer whether or not to retain the work of the audio-visual worker in the audio-visual and at the same time, it shall be option of the audiovisual workers whether or not to allow his/her name to go on the credit titles of the film.
25. That the Producer shall have the right to decide the manner of representing the audio-visual worker's personality on the screen, his/her clothes, make-up and hair-style and the audio-visual worker shall fully and willingly comply with the direction of the Producer in this regard, provided that the requirements of the Producer in this respect have been notified to the audio-visual worker and accepted by him/her.
26. That the audio-visual worker agrees that He/She shall render his/her services to the best of his/her ability in such manner as the Producer or, at his instance, the Director of the audio-visual may direct and shall comply with all reasonable instructions that he/she may give for the production of the film.
27. That the audio-visual worker shall comply with all the regulations of the studio, location or work place as the case may be.
28. That the Producer shall not without the consent in writing of the audio-visual worker, assign or transfer the benefit of this agreement to any other person.
29. That the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 shall be applicable to this agreement.

30. That the Producer shall not utilise the work of the audio-visual worker in any film, other than the audio-visual under this agreement, without prior permission of the audio-visual worker.
31. The parties have put their hands to this agreement on the date, month and year said above in the presence of each other and in the presence of the witnesses.

(2) Witness

Producer

Name Address

2. Witness

Audio-visual worker

Name Address

FORM XVII
[See rule 47]

**APPLICATION FOR PERMISSION TO CONSTRUCT, EXTEND
OR TAKE INTO USE ANY BUILDING AS AN INDUSTRIAL
PREMISE**

1. Applicant's name and address :
2. Full name and postal address of the industrial premises:
3. Full address to which communications relating to the Industrial premises should be sent (with e mail ID)
4. Full address of the applicant
5. Maximum Number of employees proposed to be employed on any one day during the financial year
6. Full name and residential address of the employer:
7. If the employer is a partnership /company etc. full name and residential address of the other partners or directors etc.
8. Financial resources of the employer Whether the employer is a trade mark holder under the Trade and Merchandise Marks Act, 1958
9. Previous experience of the applicant of in the industry:
10. Source of obtaining tobacco:
11. Whether the plans of the premises are enclosed:
12. Amount of fee in Rs _____ paid through online mode on _____ and E Challan No. _____ copy enclosed

Signature of applicant :

Date :

Note :— This application shall be accompanied by the following documents :—

This application shall be accompanied by the following documents :—

(a) a flow chart of the manufacturing process supplemented by a brief description of the process in its various stages ;

(b) plans, in duplicate, drawn to scale showing—

(i) the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc. ; and

(ii) the plan, elevation and necessary cross-sections of the various buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. The plans shall also clearly indicate the position of the plant and machinery, aisles and passage-ways ; and

(c) such other particulars as the Chief Inspector-cum-Facilitator may require. -

FORM - XVIII**[See rules 47 and 49(2)]****License****Licence No.****Fee****Rs.**

License is hereby granted to valid only for the premises described below for use as an industrial premises employing not more than employees on any one day during the year Subject to the conditions specified in annexure.

The license shall remain in force till the 31st day of march.....the name of industrial premises..... situation of the industrial premises.

Permission is also granted for the installation of power-driven machinery.

Dated:**Signature and Seal of the competent authority**

FORM – XIX**[See rule 52(2)]****Record of Outside Work**

Number and date of Government's Order permitting work outside the industrial premises.....

Date	Place or place where outside work was permitted	Nature of Work	Name of Employee	Remarks
1	2	3	4	5

FORM NO. XX**[See rule 53(2)]****APPLICATION FOR PERMISSION TO CONSTRUCT, EXTEND OR TAKE INTO USE ANY BUILDING
AS A FACTORY**

1.Details of Occupier			
(a)Name:			
(b)Address(office):			
(c)Address(residential):			
(d)Contact number, if any:			
2.Details of Factory			
(a)Full name:			
(b)Address with pin code:			
(c)District:			
(d)Town or village:			
(e)Nearest Railway Station:			
(f)Nearest Police Station:			
(g)Phone number,if any:			
3.Particulars of plant to be installed and Manufacturing Process			
4.Maximum number of workers		Male	Female
(To be employed)			
(3)Details of-			
(i) Raw materials			
(ii) Intermediate Product/ by Product			
(iii) Final Product			
6.Use of Chemicals in the manufacturing process, if any			
S. No.	Trade Name:	Chemical Name:	Maximum storage at any time:

24 NOTE:

(iii) **In case of any change in the above information, Department shall be informed in writing within 30 days.**

(iv) **Seal bearing “authorized signatory” shall not be used on any document**

Place: _____

Date: _____

Signature of occupier with seal: _____

(Name) _____

CHECKLIST

NOTE: This application shall be accompanied by the following documents:-

1. A flow chart of the manufacturing process supplemented by a brief description of the process in its various stage.
2. Plans, in triplicate, drawn to scale showing:
 - (2)The site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc and
 - (3)The Plan elevation and necessary cross-section of various buildings indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. The plans shall also clearly indicate the position of plant and machinery, aisles and passage ways.
3. Photo ID and address proof of the occupier.
4. Such other particulars as the Chief Inspector may require.
5. Every page of the Documents submitted along with the Form should be self-attested by the occupier along with date.
6. Any correction made in the Form should be duly signed by the occupier.”

FORM – XXI

[See rule 53(4)]

FORM OF CERTIFICATE OF STABILITY

1. Name of factory _____
2. Village, town and district in which the factory is situated _____
3. Full postal address of the factory _____
4. Name of occupier of the factory _____
5. Nature of manufacturing process to be carried on in the factory _____
6. Number of floors on which workers will be employed _____

Certified that I have inspected the building/buildings the plans of which have been approved by the Chief Inspector in his letter No. _____ dated _____ and examined the various Parts including the foundation with special reference to the machinery, plant etc. that have been installed, I am of the opinion that the building/buildings which has/have been constructed/reconstructed/extended taken into use is/are in accordance with the plans approved by the Chief Inspector in his letter mentioned above, that it/they is/are structurally sound, that its/their stability will not be endangered by its/their use as a factory/part of a factory for the manufacture of _____ for which the machinery, plant. etc. installed are intended.

Signature

Qualification

Address

Date

1. If employed by a Company, association, name and address of the Company or association.
2. The Certificate of stability referred to the sub-rule (1) shall be signed by competent person.]

FORM – XXII**[See rule 56(2)(b)]****Form for application to the Site Appraisal Committee under section 83(2)—****FORMAT OF APPLICATION TO THE SITE APPRAISAL COMMITTEE**

1. Name and address of the applicant.
2. Site Ownership Data.
 - 2.1 Revenue details of site such as survey No., Plot No. etc.
 - 2.2 Whether the site is classified as forest and if so whether approval of the Central Government under Section 5 of the Indian Forests Act, 1927 has been taken.
 - 2.3 Whether the proposed site attracts the provisions of Section 3(2) (v) of the E.P. Act, 1986, if so the nature of the restrictions.
 - 2.4 Local authority under whose jurisdiction the site is located.
3. Site Plan.
 - 3.1 Site Plan with clear identification of boundaries and total area proposed to be occupied and showing the following details nearby the proposed site—
 - (a) Historical monument, if any, in the vicinity;
 - (b) Names of neighbouring manufacturing units and human habitats, educational and training institutions, petrol installations, storages of LPG and other hazardous substances in the vicinity and their distances from the proposed unit;
 - (c) Water sources (rivers, streams, canals, dams, water filtration plants, etc.) in the vicinity;
 - (d) Nearest hospitals, fire-stations, civil defence stations and police stations and their distances;
 - (e) High tension electrical transmission lines, pipe lines for water, oil, gas or sewerage, railway lines, road, stations, jetties and other similar installations.
 - 3.2 Details of soil conditions and depth at which hard strata obtained.
 - 3.3 contour map of the area showing nearby hillocks and difference in levels.
 - 3.4 plot plan of the factory showing the entry at exit points, roads within, water drains, etc.
4. Project Report.
 - 4.1 A summary of the salient features of the project.
 - 4.2 Status of the organisation (Govt, Semi-Government, Public or private etc.)
 - 4.3 Maximum number of persons likely to be working in the factory.
 - 4.4 Maximum amount of power and water requirements and source of their supply.
 - 4.5 Block diagram of the buildings and installations, in the proposed site.
 - 4.6 Details of housing colony, hospital, school and other infrastructural facilities proposed.
5. Organisation structure of the proposed manufacturing unit/factory.
 - 5.1 Organisation diagrams of
 - proposed enterprise in general.
 - Health, safety and Environment protection departments and their linkage to operation and technical departments.
 - 5.2 Proposed Health and Safety policy.
 - 5.3 Area allocated for treatment of wastes and effluent.
 - 5.4 Percentage outlay on safety, health and environment protection measures.
6. Meteorological data relating to the site.
 - 6.1 Average, minimum and maximum of.
 - Temperature
 - Humidity
 - Wind velocities during the previous ten years.
 - 6.2 Seasonal variations of wind direction.
 - 6.3 Highest water level reached during the floods in the area recorded so far.
 - 6.4 Lightening and seismic data of the area

7. Communication Links

7.1 Availability of telephone/telex/wireless and other communication facilities for outside communication
7.2 Internal communication facilities proposed

8. Manufacturing Process Information

8.1 Process flow diagram

8.2 Brief write up on process and technology

8.3 Critical process parameters such as pressure build-up, temperature rise and run-away reactions

8.4 Other external effects critical to the process having safety implications, such as ingress of moisture or water, contact with incompatible substances, sudden power failure

8.5 Highlights of the build-in safety pollution control devices or measures/ incorporated in the manufacturing technology

9. Information of Hazardous Materials

9.1 Raw materials intermediates, products and by-products and their quantities (Enclose Material Safety Data Sheet in respect of each hazardous substance).

9.2 Main and intermediate storages proposed for raw materials/ intermediates/products/by-products (maximum quantities to be stored at any time).

9.3 Transportation methods to be for materials inflow and outflow, their quantities and likely routes to be followed.

9.4 Safety measures proposed for : - handling of materials; - internal and external transportation; and. - disposal (packing & forwarding of finished products).

10. Information on Dispersal/Disposal of Wastes and Pollutants.

10.1 Major pollutants (gas, liquid, solid,) their characteristics and quantities (average and at peak loads)
10.2 Quality and quantity of solid wastes generated, method of their treatment and disposal.

10.3 Air, water and soil pollution problems anticipated and the proposed measures to control the same, including treatment and disposal of effluents.

11. Process Hazards Information.

11.1 Enclose a copy of the report on environmental impact assessment.

11.2 Enclose a copy of the report on Risk Assessment study.

11.3 Published (open or classified) reports, if any, on accident situations/ occupational health hazards or similar plants elsewhere (within or outside the country).

12. Information of proposed safety and Occupational Health Measures.

12.1 Details of firefighting facilities and minimum quantity of water, CO₂ and or other fire fighting measures needed to meet the emergencies.

12.2 Details of in-house medical facilities proposed.

13. Information on Emergency Preparedness.

13.1 Onsite emergency plan.

13-2 Proposed arrangements, if any, for mutual aid scheme with the group of neighbouring factories.

14. Any other relevant information. I certify that the information furnished above is correct to best of my knowledge and nothing of importance has been concealed while furnishing it.

(Name and signature of the Applicant)

FORM - XXIII
[See rules 63(1)(i)(c) and 63(1)(i)(d)]

Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 82) Name of Medical officer:

(a) Mr..... From..... To.....
(b) Mr..... From..... To.....
(c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birthday)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Medical Officer						If suspended from work, state period of suspension with detailed reason	Re certified fit to resume duty on (with signature of Medical Officer)	If certificate of unfitness or suspension issued to worker	Signature with date of Medical Officer	
1	2	3	4	5	6	7	8	9	10	Result of Medical Examination						11	12	13	14	15

Note—(i) Column 8. Detailed summary of reasons for transfer or discharge should be stated
Column 11 should be expressed as fit/unfit/suspended.

FORM – XXIV
[See rule 63(I)(ii)]

Certificate of Fitness

1. SerialNo.....

SerialNo..... Date.....

Date.....

2. Name.....

3. Father's name.....

4. Sex.....

5. Residence.....

6. Date of birth, if..... available and/or..... certified age.....

7. Physical fitness.....

8. Descriptive marks.....

9. Reason for—

(1) refusal of certificate.....

Or

(2) certificate being revoked.....

I, hereby certify that I have personally examined (name)..... son/daughter of..... residing at..... who is desirous of being employed in a factory, and that his/her age, as nearly as can be ascertained from my examination, is..... years, and that he/she is fit for employment in factory as an adult/child.

His/Her descriptive marks are

Thumb-impression Certifying Surgeon

Note—Exact details of cause of physical disability should be clearly stated.

FORM XXIV-A**[See rule 28(4)]**

Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To

(b) Mr..... From..... To

(c) Mr..... From..... To

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon	Result of Medical Examination	If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11		12	13	14	15

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated

(i) Column 11. should be expressed as fit/unfit/suspended.

[See rule 75]

REGISTER OF HEALTH
(IN CASE OF INCIDENCE DUE TO HANDLING OF INSECTIDES, CHEMICALS OR
TOXIC SUBSTANCES)

Sl. No.	Date & Time of incidence	Nature of incidence	Name of the person(s) affected	Status (Permanent/Temporary)	Age	Name of wife/Dependent	Brief narration of how the incident occurred	Medical diagnosis	The hour and date on which the worker resumed work	In case of death, the date and hour of death	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

SCHEDULE – I
[See rules 3(4), 53(5)(8)]

Scale of fees payable for license and Annual Renewal (R-) of license fee for all factories
 (other than power generating stations and Electrical substations)

H.P. installed inclusive of mobile equipment							
	40	100	500	1000	2000	5000	Above 5000
1	2	3	4	5	6	7	8
Nil HP	3000	4000	6000	10,000	14,000	20,000	30,000
Up to 50 HP	5000	6000	10,000	20,000	30,000	40,000	50,000
Above 50 Up to 100 HP	6000	7000	14000	30,000	40,000	50,000	56,000
Above 100 Up to 500 HP	10,000	14,000	30,000	50,000	56,000	60,000	70,000
Above 500 Up to 1000 HP	20,000	30,000	50,000	60,000	70,000	1,00,000	1,20,000
Above 1000 Up to 2000 HP	30,000	40,000	56,000	70,000	1,00,000	1,20,000	1,40,000
Above 2000 Up to 5000 HP	40,000	50,000	60,000	1,00,000	1,20,000	1,40,000	1,60,000
Above 5000 Up to 10000 HP	50,000	56,000	70,000	1,20,000	1,40,000	1,60,000	1,80,000
Above 10,000 HP	56,000	60,000	1,00,000	1,40,000	1,60,000	1,80,000	2,00,000

SCHEDULE - II
[See rules 3(4), 53(5)(8)]

Scale of fees payable for license and Annual Renewal of license by Power Generating Stations

Generating Capacity in Kilowatts	Maximum number of Persons to be employed on any one day during the year			
	Up to 100	From 101-250	From 251 to 500	Over 500
	1 (Rs)	2 (Rs)	3 (Rs)	4 (Rs)
Up to 500KW	5400	7200	9000	10,800
Above 500 KW & Up to 1000KW	10,800	15,000	19,200	24,000
Above 1000 KW & Up to 5000KW	27,000	30,000	33,000	36,000
Above 5000 KW & Up to 10000KW	36,000	39,000	42,000	45,000
Above 10000 KW & Up to 20000KW	45,000	48,000	51,000	54,000
Above 20000 KW & Up to 30000KW	57,000	60,000	63,000	66,000
Above 30000 KW & Up to 50000KW	72,000	75,000	78,000	81,000
Above 50000 KW & Up to 75000KW	90,000	93,000	96,000	99,000
Above 75000 KW & Up to 100000KW	102,000	105,000	108,000	111,000
Above 100000 KW & Up to 200000KW	126,000	129,000	132,000	135,000
Above 200000 KW & Up to 400000KW	150,000	153,000	156,000	159,000
Above 400000 KW & Up to 1000000KW	1,71,000	174,000	177,000	1,80,000
Above 1000000KW	1,89,000	1,92,000	1,95,000	1,98,000

SCHEDULE - III
[See rules 3(4), 53(5)(8)]

Scale of fees payable for license and Annual Renewal of license by Electrical substations etc.

Capacity in Kilowatts	Up to 30 workers	Above 30 workers
	(1) Rs	(2) Rs
Up to 300 KW	3000	4000
Above 500 KW & Up to 1000 KW	6000	8000
Above 1000 KW & Up to 5000 KW	12,000	15,000
Above 5000 KW & Up to 10000 KW	18,000	24,000
Above 10000 KW & Up to 20000 KW	30,000	35,000
Above 20000 KW & Up to 30000 KW	36,000	44,000
Above 30000 KW & Up to 50000 KW	48,000	60,000
Above 50000 KW & Up to 75000 KW	54,000	70,000
Above 75000 KW & Up to 100000 KW	60,000	80,000
Above 100000 KW & Up to 200000 KW	72,000	95,000
Above 200000 KW & Up to 400000 KW	84,000	1,08,000
Above 400000 KW & Up to 1000000 KW	96,000	1,20,000
Above 1000000	1,08,000	1,50,000

SCHEDULE – IV**[See rule 7(3)]**

The following classes of dangerous occurrences, whether or not they are attended by personal injury or disablement, namely:-

- (i) bursting, of any plant or pipeline or equipment containing petroleum, steam, compressed air or other substance at a pressure greater than the atmospheric pressure;
- (ii) collapse or failure of a crane, derrick, winch, hoist or other appliances used in raising or lowering persons or goods, or any part thereof, or the overturning of a crane.
- (iii) explosion, explosion due to explosives, fire, leakage or release of harmful toxic gases, bursting out, leakage or escape of any molten metal, or hot liquid or gas causing bodily injury to any person or damage to any room or place in which persons are employed;
- (iv) explosion of a receiver or container used for the storage at pressure greater than atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas.
- (v) collapse or failure of lifting appliances or hoist or conveyors or other similar equipment for handling building or construction material or breakage or failure of rope, chain or loose gears; overturning of cranes used in building or other construction work; falling of objects from height;
- (vi) collapse of any wall, floor, gallery, roof bridge, tunnel, chimney, wall, building or subsidence of soil or any other structure, platform, staging, scaffolding or any means of access including formwork; contact work, excavation and collapse of transmission;
- (vii) spillage or leakage of hazardous substances and damage to their container;
- (viii) collapse, capsizing, toppling or collision of transport equipment within the establishment;
- (ix) fall from height of any excavation, loading or transport machinery;
- (x) an instantaneous failure of a pillar, part of a pillar or several pillars of coal (i.e., a “bump”) in working below ground;
- (xi) a rock-burst in working belowground; a premature collapse of any part of the working;
- (xii) a breakage, fracture or failure of an essential part of any machine or apparatus whereby the safety of persons may be endangered;
- (xiii) a slide causing injury to any person, damage to any machinery, or interruption of normal mining operations;
- (xiv) failure of dump or side in opencast working; a blowout;
- (xv) a failure of any structure or installation whereby the safety of persons may be endangered; or spark generated due to electrical flash-over causing burn injury to any person;
- (xvi) a major uncontrolled emission of petroleum or chemical spillage;

SCHEDULE - V**[See rule 15]**

Sl. No.	Section of the Code empowering grant of exemption	Class of factories	Nature of work exempted	Extent of Exemption	Conditions
(1)	(2)	(3)	(4)	(5)	(6)
1	26(2)	All factories	Urgent repairs	Section 26(1)	(i) Total hours of work done by any worker including the hours of normal work, if any, shall not exceed 15 on any one day, 39 during any three consecutive days or 66 during each period of seven consecutive days commencing from his first employment on such repairs. (ii) No worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours, and as the work permits a rest period of one hour shall be permitted to each worker during his daily working hours. (iii) Within 24 hours of the commencement of the work, a notice shall be sent to the Inspector describing the nature of the urgent repairs, stating the names of the persons employed, the exact time of commencement of work and the period probably required

					for its completion. A copy of the above notice shall be displayed in accordance with Section 108 (2) of the Act before the workers are engaged on urgent repairs.
2	Do	Oil tank installations	Work in connection with pumping operation	Do	(i) The worker shall ordinarily be employed on daily eight hours shifts. (ii) No such worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours. (iii) No worker shall be employed for more than 10 hours in any one day except to enable a shift worker to work a part or the whole of a subsequent shift in the absence of a worker who has failed to report for duty in time for a part of the whole shift, in which case the daily maximum hours of work shall be limited to 16. (iv) Total number of hours of overtime work done by any worker shall not exceed 50 in any one quarter. (v) The system of shift used in the factory shall have the approval of the Chief Inspector. (vi) Spread over hours shall not exceed 12 except to enable a shift
		Oil Refineries	All continuous process work in refining crude petroleum,	Do	
		Iron and Steel Factory	All work on steel furnace.	Do	
		Calcining work	Continuous process of Calcination of Coke.	Do	
		Hydro-electric Public supply factory	Operation and maintenance of prime movers and auxiliaries, transformers and switches	Do	
		Public Electric Supply companies generating electricity with thermal power.	Workers attending to boilers, turbines, engines, generators, motors, switch boards, pumps, batteries and auxiliaries.	Do	
		Electrical Transforming Factories	Operation and maintenance of transforming plant, switches and synchronous condensers.	Do	
		Water works and water pumping station			

		Distilleries	The work of attending to boilers, prime movers, pumps and auxiliaries. Attendance of boilers, prime movers and pumps, extraction of sugar from various bases, fermentation of sugar juice and wash distillation processes.		worker to work a part or the whole of a subsequent shift in the absence of a worker who has failed to report for duty in time or for the whole shift. (i) No worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours. (ii) No worker shall be employed for more than 10 hours in any one day except to facilitate a change of shift. (iii) Total overtime hours of work shall not exceed 50 in any quarter. Do Do Do
3		Chemical factories.	Work on sulphur burners, chambers, concentrators and pumps, roasting furnace, manufacture of hydrochloric acid, nitric acid, sulphuric acid, sulphates, sulphides, nitrates, chlorides, superphosphates. Work on steam service.	Do	(i) No worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours. (ii) No worker shall be employed for more than 10 hours in any one day except to enable a shift worker to work a part or the whole of a subsequent shift in the absence of worker who has failed to report for duty in time or for the whole shift. (iii) Total overtime of work shall not exceed 50 in any quarter.

		Vegetable oil Hydrogeneration factories Ice Factories	Work of refining, bleaching, filtering, generation of hydrogen, hydrogeneration and deodorising processes, compressing of oxygen, charging of cylinders, work on power equipment. Work of engine and compressors drivers, assistants and oilers, work on the ice making machinery.	Do Do	(i) No worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours. (ii) No worker shall be employed for more than 10 hours in any one day except to enable a shift worker to work a part or the whole of subsequent shift in the absence of a worker who has failed to report for duty in time or for the whole shift. (iii) Total overtime hours of work shall not exceed 50 if any one quarter.
4		Glass factories Paper factories	Work in attending to furnace. All process work from mixing of batch to removal of manufactured glass-ware from the lears. Work on choppers, digesters, kneaders, strainers and washers, beaters, paper making machines, pumping plant, reel-ers, cutters and power plant	Do Do	No worker shall be employed for more than 14 consecutive days without rest period of 24 consecutive hours. No worker shall be employed for more than 10 hours in any one day, and for more than 14 consecutive days without a rest period of 24 consecutive hours.
5		Tea Factories	The work of rolling, fermenting, firing, sorting, cleaning and packing in the tea manufacturing process. The work of paraboiling only	Do Do Do	No worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours. Do Do

		Rice Mills paraboiling process Flour Mills	All work		
6		Factories manufacturing asbestos products.	All continuous process Work	Do	(i) The workers shall ordinarily be employed on daily eight hours shifts. (ii) No such worker shall be employed for more than 14 consecutive days without a rest period of 24 consecutive hours. (iii) No worker shall be employed for more than 10 hours in any one day except to enable a shift workers to work a part or the whole of a subsequent shift in the absence of a worker who has failed to report for duty in time or for the whole shift in which care the daily maximum hours of work shall be limited to 16. (iv) Total number of hours of overtime work done by any worker shall not exceed 50 in any quarter. (v) The system of shift used in the factory shall have the approval of the Chief Inspector. (vi) Spread over hours shall not exceed 12 except to enable a shift worker to work a part or whole to a subsequent shift in the absence of a worker who has failed to report for duty in time or for the whole shift."

SCHEDULE – VI**[See rules 28(1) and 55(1)]****Dangerous operations declared under section 82-**

- (1) The following operations when carried on in any factory are declared to be dangerous operations under Section 82—
1. Manufacture of aerated of water and processes incidental thereto.
 2. Electrolytic plating or oxidation of metal articles by use of an electrolyte containing chromic acid or other chromium compounds.
 3. Manufacture and repair of electric accumulators.
 4. Glass manufacture.
 5. Grinding or glazing of metals.
 6. Manufacture and treatment of lead and certain compounds of lead.
 7. Generation of gas from dangerous petroleum.
 8. Cleaning or smoothing, roughening of articles by a jet of sand metal shot or grit or other abrasive propelled by a blast of compressed air or steam.
 9. Liming and tanning of raw hides and skins and processes incidental thereto.
 10. Manufacture of Pottery.
 11. Manufactures in chemical works and processes incidental thereto.
 12. Printing Presses and Type Foundries Certain lead processes carried therein.
 13. Compression of Oxygen and Hydrogen produced by electrolysis of water.
 14. Manufacture, handling and use of benzene and substances containing benzene.
 15. Process of extracting oils and fats from vegetable and animal source in solvent extraction plants.
 16. Manipulation of stone of any other materials containing free silica.
 17. Handling and processing of asbestos, manufacture of any article of asbestos and any other process of manufacture or otherwise in which asbestos is used in any form.
 18. Handling or manipulation of corrosive substances.
 19. Manufacture or manipulation of Manganese and its compounds.
 20. Manufacture and manipulation of dangerous pesticides.
 21. Manufacturing process or operation in carbon disulphide.
 22. Manufacturing or manipulation of carcinogenic dye intermediates.
 23. Operations involving high noise level.
 24. Manufacture of rayon by viscose process.
 25. Manufacture, storing, handling and use of highly flammable liquids and flammable compressed gases.

SCHEDULE VI(A)**[See rule 55]****MANUFACTURE OF AERATED WATER AND PROCESSES INCIDENTAL THERETO**

1. Fencing of machines — All machines for filling bottles or syphons shall be so constructed, placed or fenced as to prevent, as far as may be practicable, a fragment of a bursting bottle or syphon from striking any person employed in the factory.

2. Face guards and gauntlets — (1) The occupier shall provide and maintain in good condition for the use of all persons engaged in filling bottles or syphons—

(a) suitable face-guards to protect the face, neck and throat; and

(b) suitable gauntlets for both arms to protect the whole hand and arms:

Provided that —

(i) Paragraph 2 (1) shall not apply whether bottles are filled by means of an automatic machine so constructed that no fragment of a bursting bottle can escape, and

(ii) where a machine is so constructed that only one arm of the bottle at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.

(2) The occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, screwing, wiring, foiling, capsuling, sighting or labelling bottles or syphons —

(a) suitable face-guards to protect the face, neck and throat; and

(b) suitable gauntlet for both arms to protect the arm and at least half of the palm and the space between the thumb and forefinger.

3. Wearing of face guards and gauntlets — All persons engaged in any of the processes specified in paragraph 2 shall, while at work in such processes, wear the face-guards and gauntlets provided under the provisions of the said paragraph.

SCHEDULE VI(B)**[See rule 55]****ELECTROLYTIC PLATING OR OXIDATION OF METALARTICLES BY USE OF AN ELECTROLYTE CONTAINING CHROMIC ACID OR OTHER CHROMIUM COMPOUNDS****1. Definitions** — For the purposes of this Schedule —

(a) “Electrolytic chromium process” means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds;

(b) “Bath” means any vessel used for an electrolytic chromium process or for any subsequent process;

(c) “Employed” means in paragraphs 5,7, 8 and 9 of this Schedule, employed in any process involving contact with liquid from a bath;

(d) “Suspension” means suspension from employment in any process involving contact with liquid from any bath by written certificate in the Health Register, signed by the Medical officer appointed for the purposes of the Code, who shall have power of suspension as regards all persons employed in any such process.

2. Exhaust draught — An efficient exhaust draught shall be applied to every vessel in which an electrolytic chromium process is carried on. Such draught shall be provided by mechanical means and shall operate on the vapour or spray given off in the process as near as may be at the point of origin. The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.

3. Prohibition relating to women and young persons — No woman, adolescent or child shall be employed or permitted to work at a bath.

4. Floor of work-rooms — The floor of every room containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.

5. Protective clothing — (1) The occupier of the factory shall provide and maintain in good and clean condition the following articles of protective clothing for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such clothing shall be worn by the persons concerned —

(a) water-proof aprons and bids; and

(b) for persons actually working at a bath, loose-fitting rubber gloves and rubber boots or other water-proof footwear.

(2) The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and adequate arrangements for the drying of the protective clothing.

6. Medical requisites — The occupier shall provide and maintain a sufficient supply of suitable ointment and impermeable water-proof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping the ointment and plaster.

7. Medical examination

(a) Every person employed shall be examined by the **Medical officer** once in every 14 days and such examination shall be taken place at the factory.

(b) A Health Register in the prescribed **format** shall be kept by the occupier of the factory and it shall be entered the names of all persons employed together with such entries as the **Medical Officer** may make from time to time.

FORMAT

Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To.....
 (b) Mr..... From..... To.....
 (c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon	If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated

(i) Column 11. should be expressed as fit/unfit/suspended.

(c) No person after suspension shall be employed without written sanction from the **Medical Officer** entered in or attached to the Health Register.

8. Cautionary Placard — A Cautionary placard in the form specified by the Chief Inspector-cum- facilitator and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the factory where it can be easily and conveniently read by the workers.

9. Weekly examination — A responsible person appointed in writing by occupier of the factory shall twice in every week inspect the hands and forearms of all persons employed and shall keep a record of such inspections in the Health Register.

SCHEDULE VI(C)**[See rule 55]****MANUFACTURE AND REPAIR OF ELECTRIC ACCUMULATORS**

1. Savings — This Schedule shall not apply to the manufacture or repair of electric accumulators or parts thereof not containing lead or any compound of lead; or to the repair on the premises, of any accumulator forming part of a stationary battery.

2. Definitions — For the purposes of this Schedule —

(a) "Lead process" means the melting of lead or any material containing lead, casting, pasting, lead burning, or any other work, including trimming, or any other abrading or cutting of pasted plates, involving the use, movement or manipulation of, or contact with, any oxide of lead,

(b) "Manipulation of raw oxide of lead" means any lead process involving any manipulation or movement of raw oxides of lead other than its conveyance in a receptacle or by means of an implement from one operation to another.

(c) "Suspension" means suspension from employment in any lead process by written certificates in the **Health Register** in the prescribed format signed by the **Medical officer**, who shall have power of suspension as regards all persons employed in any such process.

FORMAT**Health Register**

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To.....

(b) Mr..... From..... To.....

(c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon					If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11					12	13	14	15

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated.

(i) Column 11. should be expressed as fit/unfit/suspended.

3. Prohibition relating to women and young persons — No woman or young person shall be employed or permitted to work in any lead process or in any room in which the manipulation of raw oxide of lead or pasting is carried on.

4. Separation of certain processes — Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another, and from any other process—

(a) Manipulation of raw oxide of lead,

(b) Pasting.

- (c) Drying of pasted plates,
- (d) Formation with lead burning ("tacking") necessarily carried on in connection therewith,
- (e) Melting down of pasted plates.

5. Air space — In every room in which a lead process is carried on, there shall be at least 500 cubic feet of air space for each person employed therein, and in computing this air space no height over 12 feet shall be taken into account.

6. Ventilation — Every workroom shall be provided with inlets and outlets of adequate size as to secure and maintain efficient ventilation in all parts of the room.

7. Distance between workers in pasting room — In every pasting room the distance between the center of the working position of any paster and that of the paster working nearest to him shall not be less than five feet.

8. Floor of workrooms — (1) The floor of every room in which a lead process is carried on shall be —

- (a) of cement or similar material so as to be smooth and impervious to water;
- (b) maintained in sound condition;
- (c) kept free from materials, plant, or other obstruction not required for, or produced in, the process carried on in the room.

(2) In all such rooms other than grid casting shops the floor shall be cleaned daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.

(3) In grid casting shops the floor shall be cleaned daily.

(4) Without prejudice to the requirements of sub-paragraphs (1), (2) and (3), where manipulation of raw oxide of lead or pasting is carried on, the floor shall also be —

- (a) kept constantly moist while work is being done;
- b) provided with suitable and adequate arrangements for drainage;
- (c) thoroughly washed daily by means of hose pipe.

9. Work-benches — The work benches at which any lead process is carried on shall —

- (a) have a smooth surface and be maintained in sound condition;
- (b) be kept free from all materials or plant not required for or produced in, the process carried on thereat; and all such work-benches other than those grid casting shops shall —
- (c) be cleaned daily either after being thoroughly damped or by means of a such cleaning apparatus at a time when no other work is being carried on thereat; and, all such work-benches in grid casting shops shall —
- (d) be cleaned daily; and every work-bench used for pasting shall —
- (e) be covered throughout with sheet lead or other impervious material;
- (f) be provided with raised edges;
- (g) be kept constantly moist while pasting being carried on.

10. Exhaust draught — The following process shall not be carried on without the use of an efficient exhaust draught —

- (a) Melting of lead or materials containing lead;
- (b) Manipulation of raw oxide of lead, unless done in an enclosed apparatus so as to prevent the escape of dust into the workroom;
- (c) Pasting;

(d) Trimming, brushing, filling or any other abrading or cutting of pasted plates giving rise to dust;

(e) Lead burning, other than —

(i) “tacking” in the formation room;

(ii) chemical burning for the making of lead linings for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable. such exhaust draught shall be effected by mechanical means and shall operate on the dust or fume given off as nearly as may be to its point of origin, so as to prevent it entering the air of any room in which persons work.

11. Fumes and gases from melting pots— The products of combustion produced in the heating of any melting pot shall not be allowed to escape into a room in which persons work.

12. Container for dross — A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the workroom, except when dross is being deposited therein.

13. Container for lead waste — A suitable receptacle shall be provided in every workroom in which old plates and waste material which may give rise to dust shall be deposited.

14. Racks and shelves in drying room — The racks or shelves provided in any drying room shall not be more than 8 feet from the floor nor than 2 feet in width; provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 4 feet. Such racks or shelves shall be cleaned only after being thoroughly damped unless an efficient suction cleaning apparatus is used for this purpose.

15. Medical examination — (a) Every person employed in a lead process shall be examined by **the Medical officer** within the seven days preceding or following the date of his first employment in such process and thereafter shall be examined by the **Medical officer** once in every calendar month, or at such other intervals as may be specified in writing by the Chief Inspector-cum- facilitator, on a day of which due notice shall be given to all concerned. “First employment” means first employment in a lead process in the factory or workshop and also re-employed therein in a lead process following any cessation of employment in such process for a period exceeding three calendar months.

(b) A Health Register in prescribed format containing the names of all persons employed in a lead process shall be kept.

FORMAT

Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To.....

(b) Mr..... From..... To.....

(c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon						If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon		
1	2	3	4	5	6	7	8	9	10	Result of Medical Examination											
										11								12	13	14	15

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated

(i) Column 11. should be expressed as fit/unfit/suspended.

(c) No person after suspension shall be employed in a lead process without written sanction from the **Medical officer** entered in or attached to the Health Register.

16. Protective clothing — Protective clothing shall be provided and maintained in good repair for all persons employed in —

(a) manipulation of raw oxide of lead;

(b) pasting;

(c) the formation room;

and such clothing shall be worn by the persons concerned. The protective clothing shall consist of a water-proof apron and water-proof footwear; and, also as regards persons employed in the manipulation of raw oxide of lead or in pasting, head coverings. The head coverings shall be washed daily.

17. Mess-room — There shall be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable mess-room, which shall be furnished with-

(a) sufficient tables and benches, and

(b) adequate means for warming food. The mess-room shall be provided under the charge of a responsible person, and shall be kept clean.

18. Cloak-room — There shall be provided and maintained for the use of all persons employed in a lead process —

- (a) a cloak-room for clothing put off during working hours with adequate arrangements for drying the clothing if wet. Such accommodation shall be separate from any mess-room;
- (b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 16.

19. Washing facilities — There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process —

- (a) a wash place under cover, with either —

- (i) a trough with a smooth impervious surface fitted with a waste pipe, without plug and of sufficient length to allow of at least two feet for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than two feet; or
- (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water laid on;
- (iii) a sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of pasters and persons employed in the manipulation of raw oxide of lead; shall include a separate marked towel for each such worker; and
- (iv) a sufficient supply of soap or other suitable cleansing material and of nail brushes;

- (b) there shall, in addition, be provided means of washing in close proximity to the rooms in which manipulation of raw oxide of lead or pasting is carried on if required by notice in writing from the Chief Inspector-cum-facilitator.

20. Time to be allowed for washing — Before each meal and before the end of day's work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person who has been employed in the manipulation of raw oxide of lead or in pasting:

Provided that if there be one basin or two feet of trough for each such persons this Rule shall not apply.

21. Facilities for bathing — Sufficient bath accommodation to the satisfaction of the Chief Inspector-cum-facilitator shall be provided for all persons engaged in the manipulation of raw oxide of lead or in pasting, and a sufficient supply of soap and clean towels.

22. Foods, drinks, etc., prohibited in work-room — No food, drink, pan, supari or tobacco shall be consumed or brought by any worker into any work-room in which any lead process is carried.

SCHEDULE VI(D)**[See rule 55]****GLASS MANUFACTURE**

1) Exemption — If the Chief Inspector-cum-facilitator is satisfied in respect of any factory or any class of process that, owing to the special methods of work or the special conditions in a factory or otherwise, any of the requirements of this Schedule can be suspended or relaxed without danger to the persons employed therein, or that the application of this Schedule or any part thereof is for any reason impracticable, he/she may by certificate in writing authorize such suspension or relaxation, as the case may be, indicated in the certificate for such period and on such conditions as he/she may think fit.

2) Definitions — For the purpose of this Schedule —

(a) “Efficient exhaust draught” means localized ventilation effected by mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume, or dust originate.

(b) “Lead Compound” means any compound of lead other than galena which, when treated in the manner described below, yields to an aqueous solution of hydrochloric acid and quantity of soluble lead compound exceeding, when calculated as lead monoxide, five percent of the dry weight of the portion taken for analysis. The method of treatment shall be as follows: A weighed quantity of the material which has been dried at 100 degree C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.

(c) “Suspension” means suspension from employment in any process specified in Paragraph 3 by written certificate in the Health Register in the prescribed format signed by the **Medical officer** who shall have power of suspension as regard all persons employed in any such process.

FORMAT
Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To

(b) Mr..... From..... To

(c) Mr..... From..... To

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon					If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	Result of Medical Examination								

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated
(i) Column 11. should be expressed as fit/unfit/suspended.

3. Exhaust draught—The following process shall be carried on except under an efficient exhaust draught or under such other conditions as may be approved by the Chief Inspector-cum-facilitator —

- (a) the mixing of raw materials to form a "batch";
- (b) the dry grinding, glazing and polishing of glass or any article of glass;
- (c) all process in which hydrofluoric acid fumes or ammoniacal vapours are given off;
- (d) all process in the making of furnace moulds or "pots" including the grinding or crushing of used "pots"; (e) all process involving the use of a dry lead compound.

4. Prohibition relating to women and young persons— No woman or young person shall be employed or permitted to work in any of the operations specified in paragraph 3 or at any place where such operations are carried on.

5. Floors and work-benches— The floor and work-benches of every room in which a dry compound of lead is manipulated or in which any process is carried on giving off silica dust shall be kept moist and shall comply with the following requirements. The floor shall be—

- (a) of cement or similar material so as to be smooth and impervious to water;
- (b) maintained in sound condition; and
- (c) cleansed daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room. The work-benches shall —
- (a) have a smooth surface and be maintained in sound condition; and

(b) be cleansed daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat.

6. Use of hydrofluoric acid— The following provisions shall apply to rooms in which glass is treated with hydrofluoric acid —

(a) there shall be inlets and outlets of adequate size so as to secure and maintain efficient ventilation in all parts of the room;

(b) the floor shall be covered with gutta parcha and be tight and shall slope gently down to a covered drain; (c) the workplaces shall be so enclosed in projecting hoods that openings required for bringing in the objects to be treated shall be as small as practicable; and

(d) the efficient exhaust draught shall be so contrived that the gases are exhausted downwards.

7. Storage and transport of hydrofluoric acid — Hydrofluoric acid shall not be stored or transported except in cylinders or receptacles made of lead or rubber.

8. Blowpipes — Every glass blower shall be provided with a separate blow pipe bearing the distinguishing mark of the person to whom it is issued and suitable facilities shall be readily available to every glass blower for sterilizing his blow pipe.

9. Food, drinks, etc., prohibited in work-rooms — No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any room or work-place wherein any process specified in paragraph 3 is carried on.

10. Protective clothing— The occupier shall provide, maintain in good repair and keep in a clean condition for the use of all persons employed in the processes specified in paragraph 3 suitable protective clothing, footwear, and goggles according to the nature of the work, and such clothing, footwear, etc., shall be worn by the persons concerned.

11. Washing facilities — There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in the process specified in paragraph 3 —

(a) a wash place with either —

(i) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least two feet for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 2 feet; or

(ii) at least one wash basin for every five such persons employed at any time, fitted with a waste pipe and plug and having an adequate supply of water laid on or always readily available.

(b) a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleaning material and of nail brushes; and

(c) a sufficient number of stand pipes with taps — The number and location of such stand pipes be to the satisfaction of the Chief Inspector-cum-facilitator.

12. Medical examination— (a) Every person employed in any process specified in Paragraph 3 shall be examined by the **Medical officer** within seven days preceding or following the date of his first employment in such process and thereafter shall be examined by the **Medical officer** once in every calendar month or at such other intervals as may be specified in writing by the Chief Inspector-cum-facilitator on a day of which due notice shall be given to all concerned.

(b) A Health Register in the prescribed format containing the names of persons employed in any process specified in Paragraph 3 shall be kept;

FORMAT
Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

- (a) Mr..... From..... To.....
- (b) Mr..... From..... To.....
- (c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon					If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11								

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated

(i) Column 11. should be expressed as fit/unfit/suspended.

(c) No person after suspension shall be employed in any process specified in Paragraph 3 without written sanction from the Medical Officer entered in or attached to the health register.

SCHEDULE VI(E)**[See rule 55]****GRINDING OR GLAZING OF METALS AND PROCESS INCIDENTAL THEREOF****1. Definitions** — For the purposes of this Schedule —

(a) "Grindstone" means a grindstone composed of natural or manufactured sandstone but does not include a metal wheel or cylinder into which blocks of natural or manufactured sandstone are fitted;

(b) "Abrasive Wheel" means a wheel manufactured of bonded emery or similar abrasive;

(c) "Grinding" means the abrasion, by aid of mechanical power, of metal, by means of a grindstone or abrasive wheel;

(d) "Glazing" means the abrading, polishing or finishing, by aid of mechanical power, of metal, by means of any wheel buff, mop or similar appliance to which any abrading or polishing substance is attached or applied;

(e) "Racing" means the turning up, cutting or dressing of a revolving grindstone before it brought into use for the first time;

(f) "Hacking" means the chipping of the surface of a grindstone by a hack or similar tool;

(g) "Rodding" means the dressing of the surface of a revolving grindstone by the application of a rod, bar or strip of metal to such surface.

2. Exception— (1) Nothing in this Schedule shall apply to any factory in which only repairs are carried on except any part thereof in which one or more persons are wholly or mainly employed in the grinding or glazing of metals.

(2) Nothing in this Schedule except Paragraph 4 shall apply to any grinding or glazing of metals carried on intermittently and at which no person is employed for more than 12 hours in any week.

(3) The Chief Inspector-cum-facilitator may by certificate in writing subject to such condition as he/she may specify therein, relax or suspend any of the provisions of this Schedule in respect of any factory if owing to the special methods of work or otherwise such relaxation or suspension is practicable without danger to the health or safety of the persons employed.

3. Equipment for removal of dust— No racing, dry grinding or glazing shall be performed without —

(a) a hood or other appliance so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off; and

(b) a duct of adequate size, air tight and so arranged as to be capable of carrying away the dust, which duct shall be kept from obstruction and shall be provided with proper means of access for inspection and cleaning, and where practicable, with a connection at the end remote from the fan to enable the Inspector to attach thereto any instrument necessary for ascertaining the pressure of air in the said duct; and

(c) a fan or other efficient means of producing a draught sufficient to extract the dust:

Provided that the Chief Inspector may accept any other appliance that is in his opinion, is effectual for the interception, removal and disposal of dust thrown off as a hood, duct and fan would be.

3. Restriction of employment on grinding operations — Not more than one person shall at any time perform the actual process of grinding or glazing upon a grindstone, abrasive wheel or glazing appliance:

Provided that this paragraph shall not prohibit the employment of person to assist in the manipulation of heavy or bulky articles at any such grindstone, abrasive wheel or glazing appliance.

5. Glazing— Glazing or other processes except processes incidental to wet grinding upon a grindstone shall not be carried on in any room in which wet grinding upon a grindstone is done.

6. Hacking and rodding — Hacking or rodding shall not be done unless during the process either

- (a) an adequate supply of water is laid on at the upper surface of the grindstone or
- (b) adequate appliances for the interception of dust are provided in accordance with the requirements of paragraph 3.

7. Examination of dust equipment—(a) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by a competent person, and any defect disclosed by such examination and test shall be rectified as soon as practicable.

(b) A register containing particulars of such examination and test shall be kept in the prescribed format.

FORMAT

Report of Examination and test of dust extraction system

1. Description of system:

2. Hood:

(a) Serial No. of Hood.....

(b) Contaminant captured.....

(c) Capture velocities.....(at points to be specified) Design value Actual value

(d) Volume exhausted at hood.....

(e) Hood Static pressure.....

3. Total pressure drop at:

(a) Joints.....

(b) Other points of system.....(to be specified.)

4. Transport velocity in Duct (at points along duct to be specified)

5. Air cleaning Device:

(a) Type used.....

(b) Velocity at inlet.....

(c) Static pressure at inlet.....

(d) Velocity at outlet.....

(e) Static pressure at outlet.....

6. Fan:

(a) Type used.....

(b) Volume handled.....

(c) Static pressure.....

(d) Pressure drop at outlet of fan.....

7. Fan Motor:

(a) Type.....

(b) Speed and horsepower.....

8. Particulars of defects, if any, disclosed during test in any of the above components. I, certify that on this ——— day of ———

the above dust extraction system was thoroughly cleaned and (so far as its construction permits) made accessible for thorough examination. I further certify that on the said date, I thoroughly examined the above dust extraction system including its components and fittings and that the above is a true report of my examination.

Signature.....

Qualification.....

Address.....

Date.....

If employed by a Company or Association,
the name and address of the company or association:

SCHEDULE VI(F)**[See rule 55]****MANUFACTURE AND TREATMENT OF LEAD AND CERTAIN COMPOUNDS OF LEAD**

1. Exemptions — Where the Chief Inspector-cum-facilitator is satisfied that all or any of the provisions of this Schedule are not necessary for the protection of the persons employed, he/she may by certificate in writing exempt any factory from all or any of such provisions, subject to such conditions as he/she may specify therein.

2. Definitions— For the purpose of this Schedule —

(a) “Lead Compound” means any compound of lead other than galena which, when treated in the manner described below, yields to an aqueous solution of hydrochloric acid a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five percent of the dry weight of the portion taken for analysis. In the case of paints and similar products and other mixtures containing oil or fat the “dry weight” means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove oil, fats, varnish or other media.

The method of treatment shall be as follows :

A weighed quantity of the material which has been dried at 100 °C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.

(b) “Efficient exhaust draught” means localised ventilation affected by heat or mechanical means, for the removal of gas vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fumes or dust originate.

3. Application — This Schedule shall apply to all factories or parts of factories in which any of the following operations are carried on —

- (a) Work at a furnace where the reduction or treatment of zinc or lead ores is carried on;
- (b) The manipulation, treatment or reduction of ashes containing lead, the de sulfurizing of lead or the melting of scrap lead or zinc;
- (c) The manufacture of solder or alloys containing more than ten percent of lead;
- (d) The manufacture of any oxide, carbonate sulphate, chromate, acetate, nitrate or silicate of lead;
- (e) Handling or mixing of lead tetra-ethyl;
- (f) any other operation involving carried on.
- (g) The cleaning of work-rooms where any of the operations aforesaid are carried on.

4. Prohibitions relating to women and young persons— No woman or young person shall be employed or permitted to work in any of the operations specified in paragraph 3.

5. Requirement to be observed — No person shall be employed or permitted to work in any process involving the use of lead compounds if the process is such that dust or fume

from a lead compound is produced therein, or the persons employed therein are liable to be splashed with any lead compound in the course of their employment unless the provisions of paragraph 6 to 14 are complied with.

6. Exhaust draught — Where dust, fume, gas or vapour is produced in the process, provision shall be made for removing them by means of an efficient exhaust draught so contrived as to operate on the dust, fume, gas or vapour as closely as possible to the point of origin.

7. Certificate of fitness — A person medically examined under paragraph 8 and found fit for employment shall be granted by a **Medical officer** a certificate of fitness in **the prescribed format** and such certificate shall be in the custody of the manager of the factory. The certificate shall be kept readily available for inspection by any Inspector-cum-facilitator and the person granted such a certificate shall carry with him, while at work, a token giving reference to such certificate.

FORMAT **Certificate of Fitness**

Serial Number:

I certify that I have personally examined (name) son
of (father's name) residing at (address)
who is desirous of being employed as (designation) in
(process, department and factory)
and that his age, as nearly as can be ascertained from any examination, is years, and that he is, in
my opinion, fit/unfit for employment in the above mentioned factory as mentioned above.
2. He may be produced for further examination after a period of
3. The serial number of the previous certificate is

Signature or left hand thumb impression
of person examined

Signature of Medical Officer

Date:

1	2	3	4
I certify that I have examined the persons mentioned above on	I extend this Certificate until (If Certificate is not extended, the period for which the worker is considered unfit for work is to be mentioned)	Signs and symptoms observed during examination	Signature of the Medical Officer.

8. Medical examination — (1) The person so employed shall be medically examined by a Medical Officer within 14 days of his first employment in such process and thereafter shall be examined by the Medical officer at intervals of not more than three months, and a record of such examinations shall be entered by the Medical officer in the special Certificate of fitness granted under paragraph 7.

(2) If at any time the Medical officer is of opinion that any person is no longer fit for employment on the grounds that continuance therein would involve special danger to health, He/She/she/she shall cancel the special certificate of fitness of that person.

(3) No person whose special certificate of fitness has been cancelled shall be employed unless the Medical officer, after re-examination, again certifies him to be fit for employment.

9. Food, drinks, etc., prohibited in workrooms — No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any workroom in which the process is carried on and no person shall remain in any such room during intervals for meals or rest.

10. Protective clothing — Suitable protective overalls and head coverings shall be provided, maintained and kept clean by the factory occupier and such overalls and head covering shall be worn by the person employed.

11. Cleanliness of work-rooms, tools, etc. — The rooms in which the persons are employed and all tools and apparatus used by them shall be kept in a clean state.

12. Washing facilities— (1) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of-

(a) a trough with smooth impervious surface fitted with a waste pipe without plug and of sufficient length to allow at least two feet for every ten persons employed at any one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than two feet; or

(b) at least one wash-basin for every ten persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of clean water; together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels.

(2) The facilities so provided shall be placed under the charge of a responsible person and shall be kept clean.

13. Mess-room or canteen — The occupier shall provide and maintain for the use of the persons employed suitable and adequate arrangements for taking their meals. The arrangements shall consist of the use of a room separate from any workroom which shall be furnished with sufficient tables and benches, and unless a canteen serving hot meals is provided, adequate means of warming food. The room shall be adequately ventilated by the circulation of fresh air, shall be placed under the charge of a responsible person and shall be kept clean.

14. Cloak-room — The occupier shall provide and maintain for the use of persons employed, suitable accommodation for clothing not worn during working hours, and for the drying of wet clothing.

SCHEDULE VI(G)**[See rule 55]****GENERATION OF GAS FROM DANGEROUS PETROLEUM**

1. Prohibition relating to women and young persons — No woman or young person shall be employed or permitted to work in or shall be allowed to enter any building in which the generation of gas from dangerous petroleum is carried on.

2. Flame traps — The plant for generation of gas from dangerous petroleum and associated piping and fittings shall be fitted with at least two efficient flame traps so designed and maintained as to prevent a flash back from any burner to the plant. One of these traps shall be fitted as close to the plant as possible. The plant and pipes and valves shall be installed and maintained free from leaks.

3. Generating building or room — All plants for generation of gas from dangerous petroleum erected after the coming into force of the provisions specified in this Schedule, shall be erected outside the factory building proper in a separate well-ventilated building (hereinafter referred to as the “generating building”). In the case of such plant erected before the coming into force of the provisions specified in this Schedule there shall be no direct communication between the room where such plants are erected (hereinafter referred to as “the generating room”) and the remainder of the factory building. So far as practicable, all such generating rooms shall be constructed of fire resisting materials.

4. Fire extinguishers— An efficient means of extinguishing fires from dangerous petrol shall be maintained in an easily accessible position near the plant for generation of gas from dangerous petroleum.

5. Plant to be approved by Chief Inspector— Gas from dangerous petroleum shall not be manufactured except in a plant for generating gas from dangerous, petroleum, the design and construction of which has been approved by the Chief Inspector.

6. Escape of dangerous petroleum— Effective steps shall be taken to prevent dangerous petroleum escaping into any drain or sewer.

7. Prohibition relating to smoking, etc. — No person shall smoke or carry matches, fire or naked light or other means of producing a naked light or spark in the generating room or building or in the vicinity thereof and a warning notice in the language understood by the majority of the workers shall be posted in the factory prohibiting smoking and the carrying of matches, fire or naked light or other means of producing light or spark into such room or building.

8. Access to dangerous petroleum or container — No unauthorized person shall have access to any dangerous petroleum or to a vessel containing or having actually dangerous petroleum.

9. Electric fittings — All electric fittings shall be of flame-proof construction and all electric conductors shall either be enclosed in metal conduits or be lead sheathed.

10. Construction of doors — All doors in the generating room or building shall be constructed to open outwards or to slide and no door shall be locked or obstructed or fastened in such a manner that it cannot be easily and immediately opened from the inside while gas is being generated and any person is working in the generating room or building.

11. Repair of containers— No vessel that has contained dangerous petroleum shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless live steam has been blown into the vessel and until the interior is thoroughly steamed out or other equally effective steps have been taken to ensure that it has been rendered free from dangerous petroleum or inflammable vapour.

Explanatory Notes — “Dangerous Petroleum” means dangerous petroleum as defined in the Petroleum Act, 1934.

SCHEDULE VI(H)**[See rule 55]****CLEANING OR SMOOTHING, ROUGHENING ETC, OF ARTICLES BY A JET OF SAND,
METAL SHOT OR GRIT OR OTHER ABRASIVE PROPELLED BY A BLAST OF
COMPRESSED AIR OR STEAM****BLASTING REGULATIONS****1. Definitions** — For the purposes of this Schedule;

(a) "Blasting" means cleaning, smoothing, roughening, or removing of any part of the surface of any article by the use of an abrasive of a jet of sand, metal shot, or grit or other material propelled by a blast of compressed air or steam.

(b) "Blasting enclosure" means a chamber, barrel, cabinet or any other enclosure designed for the performance of blasting therein.

(c) "Blasting chamber" means a blasting enclosure in which any person may enter at any time in connection with any work or otherwise,

(d) "Cleaning of casting" where done as an incidental or supplemental process in connection with the making of metal castings, means the freeing of the casting from adherent sand or other substance and includes the removal of cores and the general smoothing of a casting, but does not include the free treatment.

2. Prohibition of sand blasting — Sand or any other substance containing free silica shall not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting:

Provided that no woman or young person shall be employed or permitted to work at any operation of sand blasting.

PRECAUTIONS IN CONNECTION WITH BLASTING OPERATION**3. Blasting to be done in blasting enclosure—**

(1) Blasting shall not be done except in a blasting enclosure and no work other than blasting and any work immediately incidental thereto and clearing and repairing of the enclosure including the plants and appliances situated therein, shall be performed in a blasting enclosure. Every door, aperture and joint, of blasting enclosure, shall be kept closed and air tight while blasting is being done therein.

(2) Maintenance of blasting enclosure: Blasting enclosure shall always be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosures, and from apparatus connected therewith, into the air of any room.

(3) Provision of separating apparatus: There shall be provided and maintained for and in connection with every blasting enclosure, efficient apparatus for separating, so far as practicable, abrasive which has been used for blasting and which is to be used again as an abrasive, from dust or particles of other materials arising from blasting; and no such abrasive shall be introduced into any blasting apparatus and used for blasting until it has been so separated:

Provided that this clause shall not apply, except in the case of blasting chambers, to blasting enclosures constructed or installed before the coming into force of this Schedule, if the Chief Inspector is of opinion that it is not reasonably practicable to provide such separating apparatus.

(4) Provision of ventilating plant: There shall be provided and maintained in connection with every blasting enclosure efficient ventilating plant to extract by exhaust draught effected by mechanical means, dust produced in the enclosure. The dust extracted and removed shall be disposed of by such method in such manner that it shall not escape into the air of any room; and every other filtering or settling device situated in a room in which persons are employed, other than persons attending to such beg or other filtering or settling devices, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.

(5) Operation of ventilating plant: The ventilating plant provided for the purpose of subparagraph (4) shall be kept in continuous operation whenever the blasting enclosure is in use whether or not blasting is actually taking place therein, and in the case of a blasting chamber it shall be in operation even when any person is inside the chamber for the purpose of cleaning.

4 Inspection and Examination— (1) Every blasting enclosure shall be specially inspected by a competent person at least once in every week in which it is used for blasting. Every blasting enclosure, the apparatus connected therewith and the ventilating plant, shall be thoroughly examined and in the case of ventilating plant, tested by a competent person at least once every month.

(2) Particulars of the result of every such inspection, examination and test shall forthwith be entered in a register, which shall be kept in a form approved by the Chief Inspector-cum-facilitator and shall be available for inspection by any workman employed in or in connection with blasting in the factory. Any defect found on any such inspection, examination or test shall be immediately reported by the person carrying out the inspection, examination or test to the occupier, manager or other appropriate person and without prejudice to the foregoing requirements of this Schedule, shall be removed without avoidable delay.

5. Provision of protective helmets, gauntlets and overalls—

(1) There shall be provided and maintained for the use of all persons who are employed in a blasting chamber, where in blasting or in any work connected therewith or in cleaning such a chamber, protective helmets of a type approved by a certificate of the Chief Inspector-cum-facilitator, and every such person shall wear the helmet provided for this use while he is in the chamber and shall not remove it until he is outside the chamber.

(2) Each protective helmet shall carry a distinguishing mark indicating the person by whom it is intended to be used and no person shall be allowed or required to wear a helmet not carrying his mark or a helmet which has been worn by another person and has not since been thoroughly disinfected.

(3) Each protective helmet when in use shall be supplied with clean and not unreasonably cold air at a rate of not less than 170 litre per minute.

(4) Suitable gauntlets and overalls shall be provided for the use of all persons while performing blasting or assisting at blasting and every such person shall so engaged wear the gauntlet and overall provided.

6. Precautions in connection with cleaning and other work — (1) Where any person is engaged upon cleaning of any blasting apparatus or blasting enclosure or of any apparatus or ventilating plant connected therewith or the surroundings thereof or upon any other work in connection with any blasting apparatus or blasting enclosure or with any apparatus or ventilating plant connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting, all practicable measures shall be taken to prevent such inhalation.

(2) In connection with any cleaning operation referred to in clause 5, and with the removal of dust from filtering or setting devices all practicable measures shall be taken to dispose of the dust in such a manner that it does not enter the air of any room. Vacuum cleaners shall be provided and used wherever practicable for such cleaning operations.

7. Storage accommodation for protective wear— Adequate and suitable storage accommodation for the helmets, gauntlets and overalls required to be provided by clause 5 shall be provided outside and conveniently near to every blasting enclosure and such accommodation shall be kept clean. Helmets, gauntlets and overalls when not in actual use shall be kept in this accommodation.

8. Maintenance and cleaning of protective wear — All helmets, gauntlets, overalls and other protective devices or clothing provided and worn for the purpose of this schedule, shall be kept in good condition and so far as reasonably practicable shall be cleaned on every week day in which they are used, where dust arising from the cleaning of such protective clothing or devices is likely to be inhaled all practicable measures shall be taken to prevent such inhalation. Vacuum cleaners shall, wherever practicable, be used for removing dust from such clothing and compressed air shall not be used for removing dust from any clothing.

9. Maintenance of vacuum cleaning plant— Vacuum cleaning plant used for the purpose of this Schedule shall be properly maintained.

10. Restrictions in employment of young persons— (1) No person under 18 years of age shall be employed in blasting or assisting at blasting or in any blasting chamber or in the cleaning of any blasting apparatus or any blasting enclosure or any apparatus or ventilating plant connected therewith or be employed on maintenance or repair work at such apparatus, enclosure or plant.

(2) No persons under 18 years of age shall be employed to work regularly within six meters feet of any blasting enclosure unless the enclosure is in a room and he is outside that room where he is effectively separated from any dust coming from the enclosure.

11. Power to exempt or relax— (i) If the Chief Inspector-cum-facilitator is satisfied that in any factory, or any class of factory, the use of sand or other substance containing free silica as an abrasive in blasting is necessary for a particular manufacture or process (other than the process incidental or supplement to making of metal castings) and that the manufacture or process cannot be carried on without the use of such abrasive or that owing to the special conditions or special method of work or otherwise any requirement of this Schedule can be suspended either temporarily or permanently, or can be relaxed without endangering the health of the persons employed or that application of any such requirements is for any reason impracticable or inappropriate, he/she may, with the previous sanction of the State Government, by an order in writing exempt the said factory or class of factory from such provisions of this Schedule, to such an extent and subject to such conditions and for such period as may be specified in the said order.

(ii) Where an exemption has been granted under sub-clause (i) a copy of the order shall be displayed at a notice board at a prominent place at the main entrance or entrances to the factory and also at the place where the blasting is carried on.

SCHEDULE VI(I)**[See rule 55]****LIMING AND TANNING OF RAW HIDES AND SKINS AND PROCESSES INCIDENTAL THERE TO****1. Cautionary notices —**

(1) Cautionary notice as to anthrax in the form specified by the Chief Inspector-cum-facilitator shall be affixed in prominent positions in the factory where they may be easily and conveniently read by the persons employed.

(2) A copy of warning notice as to anthrax in the form specified by the Chief Inspector-cum-facilitator shall be given to each person employed when he is engaged, and subsequently if still employed, on the first day of each calendar year.

(3) Cautionary notices as to the effects of chrome on the skin shall be affixed in prominent positions in every factory in which chrome solutions are used and such notices shall be so placed as to be easily and conveniently read by the persons employed.

(4) Notices shall be affixed in prominent places in the factory stating the position of the "First Aid" box or cupboard and the name of the person in-charge of such box or cupboard;

(5) If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person the contents of the notices specified in paragraphs 1,2 and 4 and if chrome solutions are used in the factory, the contents of the notice specified in paragraph 3.

2. Protective clothing — The occupier shall provide and maintain in good condition the following articles of protective clothing —

(a) waterproof footwear, leg coverings, aprons and rubber gloves for persons employed in processes involving contact with chrome solutions including the preparation of such solutions;

(b) protective footwear, aprons and gloves for persons employed in the handling of hides or skins other than in processes specified in clause (a).

Provided that gloves shall not be required for persons fleshing by hand or where there is no risk of contact with lime, sodium sulphide or other caustic liquor.

3. Washing facilities, mess-room and cloak-room — There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed: —

(a) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least 60 centimeters for every ten persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 centimeters; or

(b) at least one wash basin for every ten such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water together with, in either case, a sufficient supply of nail brushes, soap or other suitable cleansing material and clean towels;

(c) a suitable mess-room, adequate for the number remaining on the premises during the meal intervals, which shall be furnished with

(1) sufficient tables and benches, and

(2) adequate means for warming food and for boiling water;

The mess-room shall —

- (1) be separate from any room or shed in which hides or skins are stored, treated or manipulated,
- (2) be separate from the cloak-room, and
- (3) be placed under the charge of a responsible person;
- (d) suitable accommodation for clothing not worn during working hours with adequate arrangements for drying the clothing if wet. The accommodation so provided shall be placed under the charge of a responsible person.

4. Food, drinks, etc., prohibited in work-rooms — No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any workroom or shed in which hides or skins are stored, treated or manipulated.

5. First-aid arrangements— The occupier shall —

- (a) arrange for an inspection of the hands of all persons coming into contact with chrome solutions to be made twice a week by a responsible person;
- (b) provide and maintain a sufficient supply of suitable ointment and impermeable waterproof plaster in a box readily accessible to the worker and used solely for the purpose of keeping the ointment and plaster.

SCHEDULE VI()**[See rule 55]****MANUFACTURE OF POTTERY****1. Definitions** — For the purpose of this Schedule —

(a) “Pottery” includes earthenware, stoneware, porcelain, china tiles and any other articles made from clay or from a mixture containing clay and other materials such as quartz, flint, feldspar and gypsum.

(b) “Efficient exhaust draught” means localized ventilation effected by mechanical or other means, for the removal of dust or fume so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove effectively dust or fume generated, at the point where dust or fume originates.

(c) “Fettling” includes scalloping, towing, and sand papering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off.

(d) “Leadless glaze” means a glaze which does not contain more than one percent of its dry weight of a lead compound calculated as lead monoxide.

(e) “Low solubility glaze” means a glaze which does not yield to dilute hydrochloric acid more than five percent of its dry weight of a soluble lead compound calculated as lead monoxide when determined in the manner described below:-

A weighed quantity of the material which has been dried at 100 degree C and thoroughly mixed shall be continuously shaken for one hour at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphide.

(f) “Ground or powdered flint or quartz” does not include natural sands;

(g) “Potter’s shop” includes all places where pottery is formed by pressing or by any other process and all places where shaping, fettling or other treatment of pottery articles prior to placing for the biscuit fire is carried on.

2. Efficient exhaust draught — The following processes shall not be carried on without the use of an efficient exhaust draught —

(i) All processes involving the manipulation or use of a dry and unfretted lead compound.

(ii) The fettling operations of any kind, whether on greenware or biscuit; provided that this shall not apply to the wet fettling, and to the occasional finishing of pottery articles without the aid of mechanical power. (iii) The sifting of clay dust or any other materials for making tiles or other articles by pressure, except where —

(a) this is done in a machine so enclosed as to effectually prevent the escape of dust; or

(b) the material to be sifted is so damp that no dust can be given off;

(iv) The pressing of tiles from the clay dust, an exhaust opening being connected with each press; this clause shall also apply to the pressing from clay dust or articles other than tiles, unless the material is so damp that no dust is given off;

(v) The fettling of tiles made from clay dust by pressure, except where the fettling is done wholly on, or with damp material; this clause shall also apply to the fettling of other articles

made from clay dust, unless the material is so damp that no dust is given off;

(vi) The process of loading and unloading of saggars where handling and manipulation of ground and powdered flint, quartz, alumina or other materials are involved;

(vii) The brushing of earthenware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilation or other ventilation which is certified by Inspector of Factories as adequate, having regard to all the circumstances of the case;

(viii) Fettling biscuit-ware which has been fired in powdered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust;

(ix) Where cleaning after the application of glaze by dipping or other process;

(x) Crushing and dry grinding of materials for pottery bodies and saggars, unless carried on in machines so enclosed as to effectively prevent the escape of dust or is so damp that no dust can be given off;

(xi) Sieving or manipulation of powdered flint, quartz, clay grog or mixture of these materials unless it is so damp that no dust can be given off;

(xii) Grinding of tiles on a power-driven wheel unless an efficient water spray is used on the wheel;

(xiii) Lifting and conveying of materials by elevators and conveyor unless they are effectively enclosed and so arranged as to prevent escape of dust into the air in or near to any place where persons are employed;

(xiv) The preparation or weighing out of flow material, lawning of dry colours, colour dusting and colour blowing;

(xv) In mould making unless the bins or similar receptacles used for holding plaster of Paris are provided with suitable covers;

(xvi) The manipulation of calcined material unless the material has been made and remains so wet that no dust is given off;

3. Each of the following processes shall be carried on in such a manner and under such condition so as to secure effectual separation from the other, and from wet processes —

(a) crushing and dry grinding or sieving materials, fettling, pressing of tiles, drying of clay and greenware, loading and unloading of saggars;

(b) all processes involving the use of a dry lead compound.

4. No glaze which is not a leadless glaze or low solubility glaze shall be used in a factory in which pottery is manufactured.

5. No woman or young person shall be employed or permitted to work in any of the operations specified in clause 2, or at any place where such operations are carried on.

6. The potter's wheel (Jolly and Jiggers) shall be provided with screens or so constructed as to prevent clay scrapings being thrown off beyond the wheel.

7. (1) All practical measures shall be taken by damping or otherwise to prevent dust arising during cleaning of floors.

(2) Damp saw-dust or other suitable material shall be used to render the moist method effective in preventing dust rising into the air during the cleaning process which shall be carried out after work has ceased.

8. The floors of potter's shops, slip houses, dipping houses and ware cleaning rooms shall be hard, smooth and impervious and shall be thoroughly cleaned daily by a moist method by an adult male.

9. Medical Examination— (1) All persons employed in any process included under clause 2 shall be examined by the Medical officer within 7 days preceding or following the date of their first employment in such process; thereafter all persons employed in any process included under clause 2 (i) and (xiv) shall be examined by the Medical officer once in every three calendar months, and those employed in any process included in clause (ii) to (xiii) and (xv) and (xvi) once in every 12 months by the Medical officer. Records of such examinations shall be entered by the Medical officer in the Health Register and certificate of fitness granted to him under clause 10.

(2) If at any time the Medical officer is of opinion that any person employed in any process included in clause 2 is no longer fit for employment on the ground that continuance therein would involve damage to his health, He/She/she/she shall cancel the certificate of fitness granted to that person.

(3) No person whose certificate of fitness has been cancelled shall be re-employed unless the Medical officer after examination again, certifies him to be fit for employment.

10. Certificate of fitness —

A person medically examined under clause 9 and found fit for employment shall be granted by the Medical officer a certificate of fitness in **the prescribed format** and such certificate shall be in the custody of the manager of the factory. The certificate shall be kept readily available for inspection by any inspector-cum-facilitator and the person granted such a certificate shall carry with him while at work, a token giving reference to such certificate.

FORMAT

Certificate of Fitness

1. Serial No.....

Serial No.....

Date.....

Date.....

2. Name.....

3. Father's name.....

4. Sex.....

5. Residence.....

6. Date of birth, if.....available and/or.....certified age.....

7. Physical fitness.....

8. Descriptive marks.....

9. Reason for—

(1) refusal of certificate.....

Or

(2) certificate being revoked.....

I, hereby certify that I have personally examined (name).....son/daughter of..... residing at..... who is desirous of being employed in a factory, and that his/her age, as nearly as can be ascertained from my examination, is..... years, and that he/she is fit for employment in factory as an adult/child.

His/Her descriptive marks are

Thumb-impression Certifying Surgeon

Note—Exact details of cause of physical disability should be clearly stated.

11. Protective equipment — (1) The occupier shall provide and maintain suitable overalls and head coverings for all persons employed in process included under clause 2.

(2) The occupier shall provide and maintain suitable aprons of a 'waterproof or similar material, which can be sponged daily for the use of the dippers, dippers assistants, throwers, jolly workers, casters, mould makers and filter press and pug mill workers.

(3) Aprons provided in pursuance of clause 11 (2) shall be thoroughly cleaned daily by the wearers by sponging or other wet process. All overalls and head coverings shall be washed, cleaned and mended at least once a week and this washing, cleaning or mending shall be provided for by the occupier.

(4) No person shall be allowed to work in emptying sacks of dusty materials, weighing out and mixing of dusty materials and charging of ball mills and plungers without wearing a suitable and efficient dust respirator.

12. Washing facilities— (1) The occupier shall provide and maintain, in a cleanly state and in good repair for the use of all persons employed in any of the processes specified in clause 2, a wash place under cover, with either- (a) (i) a trough with smooth impervious surface fitted with a waste pipe without plug, and sufficient length to allow at least two feet for every five such persons employed at any one time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than 60 centimeters; or

(ii) at least one tap or stand pipe for every five such persons employed at any one time, and having a constant supply of clean water, the tap or stand pipe being spaced not less than 4 feet apart; and

(b) a sufficient supply of clean towels made of suitable material changed daily, with sufficient supply of nail brushes and soap.

13. Time allowed for washing — Before each meal and before the end of the day's work at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person employed in any of the processes mentioned in clause 2.

14. Mess-room— (1) There shall be provided and maintained for use of all persons remaining within the premises during the rest intervals, suitable messroom providing accommodation of 0.93 square meter per head and furnished with—

(i) a sufficient number of tables and chairs or benches with back rest;

(ii) arrangements for washing utensils;

(iii) adequate means for warming food;

(iv) adequate quantity of drinking water.

(2) The room shall be adequately ventilated by the circulation of fresh air and placed under the charge of responsible person and shall be kept clean.

15. Food, drinks etc., prohibited in work-room— No food, drink, pan and supari, or tobacco shall be brought into, or consumed by any worker in any workroom in which any of the processes mentioned in clause 2 are carried on and no person shall remain in any such room during intervals for meal or rest.

16. Cloak-room, etc. — There shall be provided and maintained for use of all persons employed in any of the processes mentioned in clause 2 —

(a) a cloak-room for clothing put off during working hours and such accommodation shall be separate from any mess-room;

(b) separate and suitable arrangements for the storage of protective equipment provided under clause 11.

17. These regulations shall not apply to a factory in which any of the following articles, but no other pottery, are made —

(a) unglazed or salt glazed bricks and tiles; and

(b) architectural terra-cotta made from plastic clay and either unglazed or glazed with a leadless glaze only.

18. Exemptions — If in respect of any factory the Chief Inspector-cum-facilitator is satisfied that all or any of the provisions of this Schedule are not necessary for the protection of the persons employed in such factory, he/she may, by a certificate in writing, exempt such factory from all or any of such provisions, subject to such conditions as he/she may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-facilitator without assigning any reasons.

SCHEDULE VI(K)**[See rule 55]****MANUFACTURES IN CHEMICAL WORKS AND PROCESSES****INCIDENTAL THERETO**

Application — These rules shall apply to all manufactures and processes incidental thereto carried on in chemical works. These rules shall be in addition to and not in derogation of any provisions of the Code or any other rules-made thereunder or of any other Act or rules.

Definitions — ‘Chemical works’ means any factory or such parts of any factory as are named in Schedule (I) to this Schedule.

‘Breathing Apparatus’ means

1) a helmet of face-piece with necessary connections by means of which a person using it in a poisonous, asphyxiating or irritant atmosphere breathes ordinary air, or

(2) any other suitable apparatus approved in writing by the Chief Inspector-cum-facilitator.

‘Life-belt’ means belt made of leather or other suitable materials which can be securely fastened round the body, with a suitable length of rope attached to it, each of which is sufficiently strong to sustain the weight of a man.

‘Efficient exhaust draught’ means localized ventilation effected by mechanical or other means for the removal of gas, vapour, fume, or dust to prevent it from escaping into the air of any place in which work is carried out.

‘Surgeon’ means a Medical officer appointed under Section 42(1) of the Code.

‘Suspension’ means suspension by written certificate in the Health Register, signed by the Surgeon, from employment in any process mentioned in the certificate.

‘Bleaching powder’ means the bleaching powder commonly called chloride of lime.

‘Chlorate’ means chlorate or perchlorate.

‘Caustic’ means hydroxide of potassium or sodium.

‘Caustic pot’ means a metal pot fixed over furnace of flue and surrounded by brick-work, such as is commonly used for concentrating caustic liquor, whether such pot be used for concentrating or boiling caustic or other liquor.

‘Chrome process’ means the manufacture of chromate or bichromate of potassium or sodium, or the manipulation, movement or other treatment of these substances in connection with their manufacture.

‘Nitro or Amino process’ means the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues, and the making of explosives with the use of any of these substances.

Exceptions — If the Chief Inspector-cum-facilitator is satisfied in respect of any factory or any process that, owing to the special conditions or special methods of work, or by reasons of the infrequency of the process or for other reasons, any of the requirements of these rules are not necessary for the protection of persons employed in any factory or process, he/she may by order in writing (which he/she may in his discretion revoke) exempt such factory or process from all or any of the provisions of these rules subject to such conditions as he/she may by such order prescribe.

PART I
APPLYING TO ALL WORKS IN SCHEDULE VI(K)(i)
GENERAL

1. House-keeping — (a) Every part of the ways, works, machinery and plant shall be maintained in a clean and tidy condition.

(b) Any spillage of materials shall be cleaned up without delay.

(c) Floors, platforms, stairways, passages and gangways shall be kept free of temporary obstructions.

(d) There shall be provided easy means of access to all parts of the plant to facilitate cleaning, maintenance and repairs.

2. Improper use of chemicals — (a) No chemicals or solvents shall be used by workers for any purposes apart from the processes for which they are supplied.

(b) Workers shall be instructed on the possible dangers arising from such misuse. These instructions shall further be displayed in bold letters in prominent places in the different sections.

3. Storage of food — (a) No food, drink, tobacco, pan or similar articles shall be stored or consumed on or near any part of the plant.

(b) Testing - Workers shall be instructed on the possible dangers, arising from the testing of materials, or of the use for drinking purposes of any vessel used, in or in connection with the manufacture of chemicals. These instructions shall further be displayed in bold letters in prominent places in the different sections.

4. Process hazards — Before commencing any large-scale experimental work, or any new manufacture, all possible steps shall be taken to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions. The properties of the raw materials used, the final products to be made, and any by-products arising during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers, which may arise during manufacture.

The design of the buildings and plant shall be based on information so obtained.

5. Unauthorised personnel — (a) Unauthorised persons shall not be permitted to enter any section of the factory or plant where there are special dangers.

(b) Visitors—Visitors shall be provided, where necessary, with suitable safety equipment and shall be accompanied round dangerous plant by a responsible official.

6. Instrument— All instruments, such as pressure gauges, thermometers, flow meters and weighing machines shall be tested at regular intervals by a competent person, and records of these tests shall be kept in a register.

7. Cocks and Valves— Suitable valves shall be provided in all service lines at sufficiently short intervals for conveyance in blanking off, etc. All cocks and valves shall be operated at least once a month, and tested periodically by a competent person and records of these tests shall be kept in a register. A plan of all service installations shall be kept readily available for perusal.

8. Manhole — No manhole shall be opened for entry until effective fencing has been erected around it.

9. Emergency Instructions — Simple and special instructions shall be framed to ensure that effective measures will be carried out in cases of emergency, to deal with escapes of inflammable, poisonous or deleterious gases, vapours, liquids, or dusts. These instructions shall further be displayed in bold letters in prominent places in the different sections. All workers shall be trained and instructed in the action to be taken in such emergencies, and the general hazards of their employment.

10. Protection of Reaction Mixtures — Suitable arrangements shall be made to ensure that no foreign matter of any sort can fall into reaction mixtures.

11. Electrical Apparatus — Electrical plant, fittings, and conductors, shall if exposed to a damp or corrosive atmosphere, be adequately protected. Periodic tests shall be carried out on all circuits.

12. Place of work — (a) Workers shall only be allowed in those places in which they have been given orders to work.

(b) In dangerous sections of a factory, the number of workers shall be kept to minimum compatible with the need of the process.

13. Packing, Storage and Transport of Chemicals — Chemicals shall be packed and stored in containers suitable for the purpose and of adequate strength for storage or transport. All such containers shall be suitably labelled so that they will be stored and transported in such a manner as to ensure that, in the event of a spillage, they will neither produce a reacting mixture, nor cause the development of toxic or fire risks in contact with other products in its vicinity, or with walls, floors, or dust thereon.

FIRE AND EXPLOSION RISKS

14. Site — (a) Buildings and plant shall be sited with due regards to the dangers which may arise from the processes involved, and in particular shall be spaced at distance which are deemed safe for the fire and explosion risks connected with the processes in adjacent buildings. Due consideration shall be given to the effect of any processes carried out in adjacent factories.

(b) Isolation of Buildings — Where special dangers exist, separate buildings shall be used for the different parts of a process. They shall be spaced at sufficient distances apart and shielded to prevent damage to each other in the event of fire or explosion, and shall be safeguarded by the provision of suitable blow-out panels or roofs. Where the risk of fire or explosion is considerable the building shall be divided by blast or protective screen walls.

(c) Fire Resistance — No combustible materials shall be used in the erection of working buildings, unless there are special reasons necessitating their use, when they shall be rendered fire-resistant. The roof shall be of light fire-resistant construction and floor shall be of impervious fire-resistant material and shall be regularly maintained in such condition.

15. Dangers of Ignition (including lighting installation) — (a) No internal combustion engine, and no electric motor or other electrical equipment, capable of generating sparks or otherwise causing combustion shall be installed or used in a building or danger zone. Electric conductor shall be fitted with screwed steel conduit.

(b) All hot exhaust pipes shall be installed outside a building and other hot pipes shall be suitably protected.

(c) Portable electric hand lamps shall not be used unless of an intrinsically safe type, and portable electric tools connected by flexible wires shall not be used, unless of the flame proof type.

(d) Where an inflammable atmosphere may occur the soles of footwear worn by workers shall have no metal on them, and the wheels of trucks or conveyors shall be of conductive non-sparking materials. Adequate precautions shall be taken to prevent the ignition of explosive or inflammable substances by sparks emitted from locomotives or other vehicles operated in the factory or on public lines.

(e) No electric arc lamp, or naked light, fixed or portable, shall be used, and no person shall have

in his possession any match or any apparatus of any kind for producing naked light or spark in or on, or about any part of the factory where there is liability to fire or explosion from inflammable gas, vapour or dust and all incandescent electric lights in such parts shall be in double air tight glass covers.

(f) Prominent notices in the language understood by the majority of the workers and legible by day and by night, prohibiting smoking, the use of naked lights and the carrying of matches or any apparatus for producing a naked light or spark, shall be affixed at the entrance of every room or place where there is the risk of fire or explosion from inflammable gas, vapour or dust. In the case of illiterate workers, the contents of the notices shall be fully and carefully explained to them when they commence work in the factory for the first time and again when they have completed one week in a factory.

(g) Non-sparking Tools - A sufficient supply of spades, scrapers and pails made from non-sparking material shall be provided for the use of persons employed in cleaning out or removing residues from any chamber, still, tank, or other vessel where an inflammable or explosive danger may occur.

Note — The risk is not always obvious and may arise, for example, through the production of hydrogen in acid tanks.

16. Static Electricity—(a) All machinery and plant, particularly pipe lines and belt drives, on which static electricity is likely to accumulate shall be effectively earthed. Receptacles for inflammable liquids shall have metallic connections to the earthed supply tanks to prevent static sparking. Where necessary, humidity shall be controlled.

(b) Mobile tanker wagons shall be earthed during filling and discharge, and precautions shall be taken to ensure that earthing is effective before such filling or discharge takes place.

(c) Lighting condition—Lighting protection apparatus shall be fitted where necessary and shall be maintained in good condition.

17. Process heating — The method of providing heat for a process shall be as safe as possible and where the use of naked flame is necessary, the plant shall be so constructed as to prevent any escaping inflammable gas, vapour or dust coming into contact with the flame, or exhaust gases or other hot agency likely to cause ignition. So far as practicable, the heating medium shall be automatically controlled at a pre-determined temperature below the danger temperature.

18. Escape of materials —

(a) Provision shall be made in plant, sewers, drains, flues, ducts, culverts and buried pipes to prevent the escape and spread of any liquid, gas, vapour, fume or dust likely to give rise to fire or explosion, both during normal working and in the event of accident or emergency.

(b) If escape occurs, such substances shall be removed expeditiously and efficiently at the point of liberation. The effluents shall be trapped and rendered safe outside the danger area.

19. Leakage of inflammable liquids — (a) Provision shall be made to confine by means of bound walls, sumps, etc., possible leakages from vessel containing inflammable liquids.

(b) Adequate and suitable fixed fire-fighting appliances shall be installed in the vicinity of such vessels.

20. Cleaning of Empty Containers — (a) All empty containers which have held inflammable liquids and metal containers which have held Sulphuric acid shall be rendered permanently safe as soon as practicable and shall not be repaired or destroyed until such cleaning has been completed. Storage of Combustible Materials —

(b) Combustible and inflammable materials shall not be stored in close proximity to chemicals which are liable to cause ignition.

(c) Rubbish shall be removed from building without delay and placed in special metal containers provided with close fitting lids. The contents shall be removed daily and suitably dealt with. Waste products containing inflammable or explosive materials shall not be placed on rubbish heaps but shall be destroyed in an appropriate manner.

21. Installing of Pipe Lines for Inflammable Liquids — All pipe lines for the transport of inflammable liquids shall be protected from breakage, shall be arranged so that there is no risk of mechanical damage from vehicles and shall be so laid that they drain throughout without the collection of deposits at any part. All flanged joints, bends and other connections shall be regularly inspected. Cocks and valves shall be so constructed that explosive residues cannot collect therein. The open and closed positions of all cocks and valves shall be clearly indicated on the outside.

22. Packing of Reaction Vessels — Packing and jointing materials for reaction vessels (including covers, manhole covers, and exhaust pipes) and in pipe lines and high or low temperature insulating material shall not contain material which are combustible or which react with the products of the plant.

23. Safety Valves — Every still and every closed vessel in which gas is evolved or into which gas is passed, and in which the pressure is liable to rise to a dangerous

degree, shall have attached to it a pressure gauge, and a proper safety valve or other equally efficient means to relieve the pressure, maintained in good condition. Nothing in these Rules shall apply to metal bottles or cylinders used for the transport of compressed gases.

24. Vigorous or delayed reactions — Suitable provision, such as automatic and distant control shall be made for controlling the effects of unduly vigorous or delayed reactions. Automatic flooding or blanketing shall be provided for in the event of an accident.

25. Examination, testing and repair of plant — Examination, testing and repair of plant part which have been in contact with explosive and inflammable material or which is under pressure, shall only be carried out under proper supervision.

26. Alarm systems — (a) Gravity or pressure feed systems of supplying inflammable materials to the various parts of the buildings or plant shall be fitted with alarm systems, automatic cut-offs or other devices to prevent overcharging or otherwise endangering the plant.

(b) The amount of inflammable material taken into a building in bulk containers at any one time shall be kept as low as practicable.

(c) Adequate steps shall be taken to prevent the escape of inflammable and explosive vapours from any container into the atmosphere of any building.

GAS, VAPOUR, FUME OR DUST RISKS

27. Escape of Gases, Etc., — (a) Effective steps shall be taken to prevent the escape of dangerous gases, vapours, fumes or dust from any part of the plant, by the total enclosure of the process involved or by the provision of efficient exhaust draught. Effective arrangements shall be made to ensure that in the event of failure of the control measure provided in compliance of the foregoing, the process shall stop immediately.

(b) In the event of any such escape, provision shall be made to trap the materials and render them safe.

28. Danger due to Effluents — (a) Adequate precautions shall be taken to prevent the mixing of effluents which may cause dangerous or poisonous gases to be evolved.

(b) Effluents which may contain or give rise in the presence of other effluents to such gases shall be provided with independent drainage system to ensure that they may be trapped and rendered safe.

29. Staging — (a) Staging shall not be erected over any open vessel unless the vessel is so constructed and ventilated as to prevent the emission of vapour or fumes about such staging;

(b) Where such staging is provided to give access to higher levels in large plants, effective means shall be provided at all levels with direct means of access to the outside of the room or building and thence to ground level;

(c) Such staging shall be fitted with suitable handrails and toe boards and the floors and staging shall be impervious and easily cleaned.

30. Instructions as regards risk — Before commencing work, every worker shall be fully instructed on the properties of the materials they have to handle, and of the

dangers from any gas, fume, vapour or dust which may be evolved during the process. Workers shall also be instructed in the measures to be taken to deal with such an escape in the event of emergency.

31. Breathing Apparatus — (a) There shall be provided in every factory where dangerous gas, or fume is liable to escape sufficient supply of —

- (i) breathing apparatus of an approved make for the hazards involved;
- (ii) oxygen and suitable means of its administration; and
- (iii) lifebelts.

The breathing apparatus and other appliances required by this Rule shall—

- (i) be maintained in good order and kept in an ambulance room or in some other place approved in writing by the Chief Inspector; and
 - (ii) be thoroughly inspected once in every month by a competent person, appointed in writing by the occupier, and a record of their condition shall be entered in a book provided for that purpose, which shall be produced when required by an Inspector.
- (b) Workers shall be trained, and given a periodic refresher course in the use of breathing apparatus and respirators;

(c) Respirators shall be kept properly labelled in clean dry light-proof cabinets, and if liable to be affected by fumes shall be protected by suitable containers. Respirators shall be dried and cleaned after use and shall be periodically disinfected.

32. Treatment of Persons — In every room or place wherever required in writing by the Chief Inspector there shall be affixed official cautionary notice regarding gassing burns. Such notice shall be legible by day and by night and shall be printed in the language understood by the majority of the workers.

33. Personal Protective Equipment— (a) Suitable protective clothing shall be provided for the use of operators — (i) when operating valves or cocks controlling fluids which by their nature, pressure or temperature would be highly dangerous if a blow-out occurred or when cleaning chokes in systems containing such fluids if pressure is likely to exit behind the chokes;

(ii) when there is danger of injury by absorption through the skin during the performance of normal duties or in the event of emergency;

(iii) whenever there is the risk of injury in handling corrosive substances, hot or cold articles and sharp or rough objects; and

(iv) when there is the risk of poisonous materials being carried away on their clothes.

(b) There shall be provided for the use of all persons employed in the processes specified in Schedule II to this Schedule an adequate supply of suitable protective equipment including gloves, overalls, and protective footwear, and of goggles and respirators. Respirators shall be of a type approved in writing by the Chief Inspector;

(c) Protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency;

(d) Arrangements shall be made for the proper and efficient cleaning of all such protective equipment.

34. Cloak rooms — There shall be provided and maintained for the use of all persons employed in the processes specified in Schedule II to this Schedule a suitable cloak room, for clothing put off during working hours and a suitable place separate from the cloak room, for the storage of overalls or working clothes. The accommodation so provided shall be placed in the charge of a responsible person, and shall be kept clean.

35. Special Bathing Accommodation — (a) There shall be provided for the use of all persons employed in the processes specified Schedule III to this Schedule separate sanitary conveniences and sufficient and suitable bathing facilities, which shall be to the satisfaction of the Chief Inspector.

(b) A bath register shall be kept containing the names of all persons employed in these processes and an entry of the date when each person takes a bath.

36. Entry into Vessels — (a) Before any person enters, for any purpose except that of rescue, any absorber, boiler, culvert, drain, flue, gas purifier, sewer, still, tank, tower, vitriol chamber or other place where there is reason to apprehend the presence of dangerous gas or fume, a responsible person appointed in writing by the occupier for the purpose, shall personally examine such place and shall certify in writing in a book kept for the purpose either that such place is isolated and sealed from every source of such gas or fume and is free from danger, or that it is not so isolated and sealed and free from danger. No person shall enter any such place which is certified not to be so isolated and sealed and free from danger unless he is wearing a breathing apparatus, and (where there are no cross stays or obstructions likely to cause entanglement) a life-belt, the free end of the rope attached to which shall be left with a man outside, whose sole duty shall be to keep watch and to draw out the wearer if he appears to be affected by gas or fume. The belt and rope shall be so adjusted and worn that the wearer can be drawn up head foremost through any manhole or opening;

(b) A person entering for the purpose of rescue any such place for which a clearance certificate has not been issued shall wear breathing apparatus and a life-belt in the manner specified.

37. Examination and Repair of Plant — Where poisonous materials are likely to be present the examination and repair of plant and piping shall only be done under the supervision of a competent person, and after the plant and piping has been thoroughly cleaned and ventilated. When opening vessels and breaking joints in pipe lines, respirators, goggles and protective clothing shall be worn to the extent required by the competent person.

38. Storage of Acid Carboys — Carboys containing nitric acid or “mixed” acid shall be stored in open-sided sheds detached from other buildings, and placed on a flooring of sandstone, brick, or other suitable inorganic materials. A passageway shall be provided and kept free from obstruction between every four rows of such carboys. An ample supply of water shall be available for washing away spilt acid and all precautions shall be taken to prevent workers being exposed to fumes.

CORROSIVE OR DELETERIOUS SUBSTANCES RISKS

39. Buildings — All buildings and plant shall be sited with due regard to possible dangers from accidental liberation or splashing of corrosive and deleterious liquids, and shall be so designed as to facilitate thorough washing and cleaning. The construction of staging and other parts of buildings shall be carried out with materials impervious and resistant to corrosion so far as practicable.

40. Leakage — (a) All plant shall be so designed and constructed as to obviate the escape of corrosive liquid. Where necessary, separate buildings, rooms, or protective structures shall be used for the dangerous stages of the process and the buildings shall be so designed as to localise any escape of liquid. (b) Catch pits, bund walls, or other suitable precautions shall be provided to restrict the serious effects of such leakages. Catch pits shall be placed below joints in pipe-lines where there is danger involved to maintenance and other workers from such leakage.

(c) Passages and work-stations shall not be situated directly below any part of plant where there is risk of escape of dangerous liquid. Access to such parts shall, so far as practicable, be prohibited, and danger notices shall be affixed at suitable points.

41. Precautions against escape— Adequate precautions shall be taken to prevent the escape of corrosive or deleterious substances and means shall be provided for rendering safe any such escape.

42. Drainage— Adequate drainage shall be provided and shall lead to special treatment tanks where deleterious material shall be neutralised or otherwise rendered safe before it is discharged into ordinary drains or sewers.

43. Covering of Vessels—(a) Every fixed vessel or structure containing any dangerous material, and not so covered as to eliminate all reasonable risk of accidental immersion in it of any portion of the body of a worker, shall be so constructed that there is no foothold on the top or the sides.

(b) Such vessel shall, unless its edge is at least 90 centimeters above the adjoining ground or platform, be securely fenced to a height of at least three 90 centimeters above such adjoining ground or platform.

(c) No plank or gangway shall be placed across or inside any such vessel, unless such plank or gangway is at least 45 centimeters wide, and is securely fenced on both sides by rails spaced at 22 centimeters apart to a height of at least 90 centimeters, or by other equally efficient means.

(d) Where such vessels adjoin and the space between them, clear of any surrounding brick or other work, is either less than 45 centimeters in width or is 45 or more centimeters in width, but is not securely fenced on both sides to a height of at least 90 centimeters, secure barriers shall be so placed as to prevent passage between them:

Provided that paragraph (b) of this rule shall not apply to —

(i) saturators used in the manufacture of Sulphate of Ammonia; and

(ii) that part of the sides of brine evaporating pans which require raking, drawing or filling.

44. Ventilation — Adequate ventilation shall be provided and maintained at all times in rooms or buildings where dangerous gas, vapour, fume or dust may be evolved.

45. Means of Escape — Adequate means of escape from rooms or buildings in the event of a leakage of corrosive liquids shall be provided and maintained.

46. Treatment of Personnel — In all places where (strong acids or dangerous corrosive liquids are used) — (a) there shall be provided for use in an emergency —

(i) adequate and readily accessible means of drenching with cold water of persons and the clothing of persons, who have become splashed with such liquid;

(ii) adequate special arrangements to deal with any person who has been splashed with poisonous material that can be absorbed through the skin;

(iii) a sufficient number of eye-wash bottles filled with distilled water or other suitable liquid, kept in boxes or cupboards conveniently situated and clearly indicated by a distinctive sign which shall be visible at all times;

(b) Except where the manipulation of such corrosive liquids is so carried on as to prevent risk of personal injury from splashing or otherwise there shall be provided for those who have to manipulate such liquids, sufficient and suitable goggles and gloves or other suitable

protection for the eyes and hands. If gloves are provided they shall be collected, examined, and cleansed at the close of the day's work and shall be repaired or renewed when necessary.

47. Maintenance — (a) Before any examination or repair are carried out on plant or pipe lines, a competent person shall issue a clearance certificate permitting such examination or repairs.

(b) Adequate precautions shall be taken to liberate any pocket of gas or liquid which may have been formed in pipe lines, and which may cause corrosive spray at the point where dismantling takes place.

48. Washing Facilities— (1) There shall be provided and maintained in every factory for the use of employed persons adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

(2) If female workers are employed, separate washing facilities shall be provided and so enclosed or screened that the interiors are not visible from any place where persons of the other sex work or pass, the entrance to such facilities shall bear conspicuous notice in the language understood by the majority of the workers "For Women Only" and shall also be indicated pictorially.

49. Mess-Room Facilities— In every factory there shall be provided and maintained for the use of those remaining on the premises during the rest intervals, suitable and adequate mess room or canteen accommodation which shall be furnished with sufficient tables and chairs or benches with back rests and where sufficient drinking water is available.

50. Ambulance Room — (a) in every factory in which more than 250 persons are employed on the processes to which these rules apply there shall be provided and maintained in good order an Ambulance Room. The Ambulance Room shall be a separate room used only for the purpose of treatment and rest. It shall have a floor space of not less than 9.3 square meter and smooth, hard and impervious walls and floor, and shall be provided with ample means of natural and artificial lighting. It shall contain all the items shown in **Schedule IV**. Where persons of both sexes are employed, arrangements shall be made at the Ambulance Room for their separate treatment. The Ambulance Room shall be placed under the charge of a qualified nurse or other person trained in First Aid, who shall always be readily available during working hours and shall keep a record of all cases of accidents or sickness, treated in the room.

(b) In every factory there shall be provided and maintained in good condition a suitably constructed ambulance van for the purpose of removal of serious cases of accidents or sickness, unless arrangements have been made with hospital or other place in-telephonic communication with the factory for obtaining such a carriage immediately when required.

51. Medical Personnel — There shall be a whole time Medical Officer in every factory employing 250 persons or more.

52. Medical Examination — In a chrome process or in a nitro or amino process — (a) A Health Register containing the names of all persons employed in the process shall be kept in a form approved by the Chief Inspector-cum-facilitator;

(b) No person shall be newly employed for more than 14 days without a certificate of fitness granted after examination by the Surgeon, by a signed entry in the Health Register;

(c) Every person employed in the process shall be examined by the Medical Officer once in each calendar month (or at such other intervals as may be prescribed in writing by the Chief Inspector-cum-facilitator) on a date/dates of which due notice shall be given to all concerned;

(d) Every person so employed shall present himself at the appointed time for examination by the Medical Officer as provided in (b) and (c) of this rule;

(e) The Medical Officer shall have power of suspension as regards to all persons employed and no person after suspension shall be employed without written sanction from the **Medical officer** and entered in the Health Register.

53. Duties of Workers — Every person employed shall — (a) report to his foreman any defect in any fencing, breathing apparatus, appliance or other requisite provided in pursuance of these rules, as soon as he becomes aware of such defect;

(b) use the articles, appliances or accommodation required by these rules for the purpose for which they are provided;

(c) wear the breathing apparatus and life-belt where required under Rule 36 (a) and (b).

54. No person shall — (a) remove any fencing provided in pursuance of Rule 43 unless duly authorised; or (b) stand on the edge or on the side of any vessel to which Rule 43 applies;

- (c) pass or attempt to pass any barrier erected in pursuance of Rule 43;
- (d) place across or inside any vessel to which Rule 43 applies any plank or gangway which does not comply with that Regulation or make use of any such plank or gangway while in such position;
- (e) take a naked light or any lamp or matches or any apparatus for producing a naked light or spark into, or smoke in any part of the works where there is liability to explosion from inflammable gas, vapour or dust;
- (f) use a metal spade, scraper or pail when cleaning out or removing the residues from any chamber, still, tank or other vessel which has contained sulphuric acid or hydrochloric acid or other substances, which may cause evolution of arseniuretted hydrogen;
- (g) remove from a First Aid Box cupboard or from the Ambulance Room any First Aid appliance or dressing except for the treatment of injuries in the work.

SCHEDULE VI(K(i))

“Chemical Works” means any work or part of a work in which — 1. the manufacture or recovery of any of the following is carried on —

- (a) Carbonates, chromates, chlorates, oxides or hydroxides of potassium, sodium, iron, aluminium, cobalt, nickel, arsenic antimony, zinc or magnesium;
 - (b) Ammonia and the hydroxide and salts of ammonium;
 - (c) Sulphurous, sulphuric, nitric, hydrochloric, hydrofluoric, hydriodic, hydrosulphuric, boric, phosphoric, oxalic, arsenious, arsenic, lactic, acetic, tartaric or citric acids and their metallic or organic salts; and
 - (d) Cyanogen compounds.
2. a wet process is carried on — (a) for the extraction of metal from ore or from any by-product or residual material; or
- (b) in which electrical energy is used in any process of chemical manufacture.
3. Alkali waste or the drainage therefrom is subject to any chemical process for the recovery of sulphur, or for the utilisation of any constituent of such waste or drainage.
4. Carbon bisulphide is made or hydrogen sulphide is evolved by the decomposition of metallic sulphides or hydrogen sulphide is used in the production of such sulphides.
5. Bleaching powder is manufactured or chlorine gas is made or is used in any process of chemical manufacture.
- 6.(a) Gas-tar or coal-tar or any compound product or residue of such tars is distilled or is used in any process of chemical manufacture;
- (b) synthetic colouring matters or their intermediates are made.
7. Refining of crude shale oil or any process incidental thereto is carried out.
8. Nitric acid is used in the manufacture of nitro-compounds.
9. Explosives are made with the use of nitro-compounds.

SCHEDULE-VI(K(ii))

1. A nitro or amino process (overalls or suits working clothes and protective footwear).
2. Grinding raw materials in a chrome process (overall suits).
3. The crystal department and in packing in a chrome process (protective coverings).
4. Packing in a chrome process (respirators).
5. Any room or place in which chlorate is crystalised, ground or packed (clothing of woollen material and boots or overshoes, the soles of which have no metal on them).
6. Any room in which caustic is ground or crushed by machinery (goggles and gloves or other suitable protection for the eyes and hands.)
7. Bleaching powder chambers, or in packing charges drawn from such chambers (suitable respirators).
8. Drawing off of molten sulphur from sulphur pots in the process of carbon disulphide manufacture (overalls, face-shields, gloves and footwear of fireproof material).

SCHEDULE VI(K(iii))

1. A nitro or amina process.
2. The crystal department and the packing room in a chrome process.
3. The process of distilling gas or coal tar (other than blast furnace tar) and any process of chemical manufacture in which such tar is used.

SCHEDULE VI(K(iv))

- (i) A glazed sink with hot and cold water always available;
- (ii) A table with a smooth top;
- (iii) Means for sterilizing instruments;
- (iv) A couch;
- (v) A stretcher;
- (vi) Two buckets or containers with close fitting lids.
- (vii) Two rubber hot water bags;
- (viii) A kettle and spirit stove or other suitable means of boiling water;
- (ix) Twelve plain wooden splints, $36// \times 4// \times \frac{1}{4}//$
- (x) Twelve plain wooden splints, $14// \times 3// \times 1 / 4 //$
- (xi) Six plain wooden splints $10// \times 2// \times 1 / 2 //$
- (xii) Three woollen blankets;
- (xiii) One pair artery forceps;
- (xiv) One bottle of brandy;
- (xv) Two medium size sponges;
- (xvi) Three hand towels;
- (xvii) Two kidney trays;

- (xviii) Four carbolic soaps
- (xix) Two glass tumblers and two wine glasses;
- (xx) Two clinical thermometers;
- (xxi) Graduated measuring glass with teaspoon;
- (xxii) One eye bath;
- (xxiii) One bottle (2 lbs.) carbolic lotion 1 in 20;
- (xxiv) Two chairs;
- (xxv) One screen;
- (xxvi) One electric hand torch;
- (xxvii) An adequate supply of anti-tetanus serum;
- (xxviii) Two first aid boxes, each containing
 - (a) 24 small sterilized dressings,
 - (b) 12 medium size sterilized dressings,
 - (c) 12 large size sterilized dressings,
 - (d) 12 large size sterilized burn dressings,
 - (e) 12 half ounce packets sterilized cotton wool,
 - (f) one snake bite lancet,
 - (g) one pair scissors,
 - (h) two (1 oz.) bottles of potassium permanganate crystals,
 - (i) one (4 oz.) bottle containing a two percent alcoholic solution of iodine,
 - (j) one (4 oz.) bottle of salvolatile having the dose and mode of administration indicated on the label,
 - (k) 1 copy of the first aid leaflet issued by the Chief Advisor, Factories, Government of India

PART II APPLYING TO WORKS OR PARTS THERE OF IN WHICH

I. Caustic pots are used; or

II. Chlorate or bleaching powder is manufactured; or

III. (a) Gastaror coaltar is distilled or is used in any process of Chemical manufacture; or

(b) Anitrooramino process is carried on; or

(c) Achrome process is carried on; or

IV. Crudeshale oil is refined or processes incidental the retoare carried on; or

V. Nitric acid is used in the manufacture of nitrocom pounds; or

VI. The evaporation of brineinopenpens and the stoving of salt are carried on; or

VII. The manufacture or recovery of hydrofluoric acid or any of its salts is carried on; and

VIII. Work at a furnace where the treatment of zincores is carried on.

1. Entry of Gas Tar or Coal Tar Still — Before any person enters a gas tar or coal tar still for any purpose except that of rescue, it shall be completely isolated from adjoining tar stills, either by disconnecting — (a) The pipe leading from the swan neck to the condenser worm; or

(b) The waste gas pipe fixed to the worm and or receiver; and in addition, blank flanges shall be inserted between the disconnected parts, and the pitch discharge pipe or cock at the bottom of the still shall be disconnected.

2. Entry into Bleaching Powder Chambers— No person shall enter a chamber for the purpose of withdrawing the charge of bleaching powder unless and until (i) The

chamber is efficiently ventilated; and (ii) The air in the chamber has been tested and found to contain not more than 2.5 grains of free chlorine gas per cubic foot. A register containing details of all such tests shall be kept in a form approved by the Chief Inspector-cum-facilitator.

3. Special Precautions for Nitro and Amino Process—In anitrooramino process—

- (a) If crystallised substance are broken or any liquor agitated by hand means shall be taken to prevent, as far as practicable, the escape of dust or fume into the air of any place in which any person is employed. The handles of all implements used in the operations shall be cleansed daily;
- (b) Cartridges shall not be filled by hand except by means of a suitable scoop;
- (c) Every drying stove shall be efficiently ventilated to the outside air in such a manner that hot air from the stove shall not be drawn in to any workroom;
- (d) No person shall enter a stove to remove the contents until a free current of air has been passed through it;
- (e) Every vessel containing nitro or amino derivatives of phenol or of benzene or its homologues shall, if steam is passed into or around it, or if the temperature of the contents be at or above the temperature of boiling water, be covered in such a way that steam or vapour shall be discharged into the open air at a height of not less than 25 feet from the ground or the working platform, and at a point where it cannot be blown back again into the work room.

4. Precautions During Caustic Grinding, Etc. — (a) Every machine used for grinding or crushing caustic shall be closed; and

(b) Where any of the following processes are carried on—

- (i) Grinding or crushing of caustic;
- (ii) Packing of ground caustic;
- (iii) Grinding, sieving, evaporating or packing in a chrome process; and
- (iv) Crushing, grinding or mixing of material or cartridge filling in anitrooramino process; an efficient exhaust draught shall be provided.

5. Chlorate manufacture—(a) Chlorate shall not be crystallised, ground or packed except in a room or place not used for any other purpose, the floor of which room or place shall be of cement or other smooth, impervious and incombustible material, and shall be thoroughly cleansed daily;

(b) Wooden vessel shall not be used for the crystallisation of chlorate, or to contain crystallised or ground chlorate; provided that this regulation shall not prohibit the packing of chlorate for sale in to wooden casks or other wooden vessels.

6. Restrictions on the employment of young persons and women — (a) Persons under 18 years of age and women shall not be employed in any process in which hydrofluoric acid fumes or ammoniacal vapours are given off or in any of the following operations—

- (i) Evaporation of brine in open pans;
- (ii) Stoving of salt;

- (iii) Work at a furnace where the treatment of zinc ores is carried on;
 - (iv) The cleaning of work rooms where the process mentioned in (iii) is carried on.
 - (b) No person under 18 years of age shall be employed in a chrome process or in anitro or amino process or in a process in which the following materials are used or where the vapour of such materials is given off; Carbonbisulphide, chloride of sulphur, benzene, carbontetrachloride, trichloroethylene, any carbon, chlorine compound, or any mixture containing any of such materials.
- 7. Duties of Employees—** Every person employed — (a) In a process to which Rule 33 apply shall wear the protective clothing, footwear, respirators, goggles or gloves provided under Rule 33 and shall deposit over all sorsuits or working clothing so provided, as well as clothing put off during working hours, in the place provided under Rule 34.
- (b) In processes to which rule 35 applies shall carefully wash the hands and face before par taking of any food or leaving the premises;
 - (c) In any process to which Part II of these rules applies shall use protective appliances supplied in respect of any process in which he is engaged.

SCHEDULE VI(L)

[See rule 55]

PRINTING PRESSES AND TYPE FOUNDRIES AND CERTAIN LEAD PROCESSES CARRIED THEREIN

1. Exemption — Where the Chief Inspector-cum-facilitator is satisfied that all or any of the provisions of the Schedule are not necessary for the protection of persons employed he/she may by certificate in writing exempt any factory from all or any of such provisions subject to such conditions as he/she may specify therein. Such certificate may at any time be revoked by the Chief Inspector-cum-facilitator.
2. Definitions — In these regulations — “Lead material” means materials containing not less than five percent of lead;
- “Lead process” means — (a) the melting of lead or any lead material for casting and mechanical composing; and
- (b) the recharging of machines with used lead material; or
 - (c) any other work including removal of dross from melting pots, cleaning of plungers; and
 - (d) manipulation, movement or other treatment of lead material.
- “Efficient exhaust draught” means localised ventilation effected by heat or mechanical means, for the removal of gas, vapour, dust or fumes so as to prevent them from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove gas, vapour, fume or dust at the point where they originate.

3. Exhaust Draught— None of the following processes shall be carried on except with an efficient exhaust draught — (a) melting lead material or slugs;
(b) heating lead material so that vapour containing lead is given off; or, unless carried on in such a manner as to prevent free escape of gas, vapour, fumes or dust into any place in which work is carried on or, unless carried on in electrically heated and thermostatically controlled melting pots; Such exhaust draught shall be effected by mechanical means and so contrived as to operate on the dust, fume, gas or vapour given off as closely as may be at its point of origin.
4. Prohibition Relating to Women and Young Persons— No women or young person shall be employed or permitted to work in any lead process.
5. Separation of certain processes— Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another and from any other process — (a) Melting of lead or any lead material;
(b) Casting of lead ingots;
(c) Mechanical composing.
6. Container for Dross — A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the work-room near the machine except when the dross is being deposited therein.
7. Floor of Work-Room — The floor of every work-room where lead process is carried on shall be — (a) Of cement or similar material so as to be smooth and impervious to water;
(b) Maintained in sound condition; and
(c) Shall be cleaned throughout daily after being thoroughly damped with water at a time when no other work is being carried on at the place.
8. Mess-Room — There shall be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable mess-room which shall be furnished with sufficient tables and benches.
9. Washing Facilities — There shall be provided and maintained in a cleanly state and in good repair for the use of all person employed in a lead process—
(a) a wash place with either — (i) a trough with a smooth impervious surface fitted with a waste pipe without plug; and of sufficient length to allow at least 60 Centimeters for every five such persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 Centimeters; or
(ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having an adequate supply of water laid on or always readily available; and
(b) a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleansing material.
10. Medical Examination—(a) Every person employed in lead process shall be examined by the Medical Officer within 14 days of his first employment in such processes and thereafter shall be examined by the Medical Officer at intervals of not more than 3 months, and a record of such examination shall be entered by the Medical Officer in the special certificate of fitness in **the prescribed format**;

FORMAT**Special certificate of fitness**

(In respect of persons employed in operations involving use of lead compounds)

Serial No.....

Date.....

I hereby certify that I have personally examined.....son of.....residing at.....who is desirous of being employed as.....in the.....and that his age, as nearly as can be ascertained from my examination is..... years, and that he is, in my opinion fit for employment at work involving the use of lead compounds.

His descriptive marks are: Medical Officer Left thumb-impression of person examined:

(b) A Health Register containing names of all persons employed in any lead process shall be kept in **the prescribed format**;

FORMAT**Health Register**

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To

(b) Mr..... From..... To

(c) Mr..... From..... To

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon	If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated
(i) Column 11. should be expressed as fit/unfit/suspended.

(c) No person after suspension shall be employed in a lead process without the written sanction from the Medical Officer, entered in the Health Register.

11. Food, Drinks, Etc., Prohibited in Work-Room — No food, drinks, pan and supari or tobacco shall be consumed or brought by any worker into any work room in which any lead process is carried on.

SCHEDULE VI(M)**[See rule 55]****COMPRESSION OF OXYGEN AND HYDROGEN PRODUCED BY THE ELECTROLYSIS OF WATER**

1. The room in which electrolyser plant is installed shall be separated from the plant for storing and compressing the oxygen and hydrogen and also the electric generator room.
2. The purity of oxygen and hydrogen shall be tested by a competent person at hourly intervals at the following points — (i) In the electrolyser room;
(ii) At the gas holder in-let; and
(iii) at the suction end of the compressor. The purity figures shall be entered and signed by the person carrying out such tests in the register:
Provided, however, that if the electrolyser plant is fitted with automatic recorder of purity of oxygen and hydrogen with alarm lights, it shall be sufficient if the purity of the gases is tested at hourly intervals at the suction end of the compressor only.
3. The oxygen and hydrogen gases shall not be compressed if their purity as determined under clause 2 above falls below 98 percent at any time.
4. There shall be at least two gas holders for each kind of gas compressed and the gas holder for same gas shall be provided with suitable arrangements to ensure that no gas holder is connected to the compressor and to the electrolyser at the same time, and only one gas holder is connected to the compressor line at any one time.
5. The bell of any gas holder shall not be permitted to go within 30 c.m. (12 inches) of its lowest position when empty, and a visual and an audible warning signal shall be fitted to the gas holder to indicate that this limit is reached.
6. The water and caustic soda used for making electrolytes shall be chemically pure within pharmaceutical limits.
7. Electrical connections at the electrolyser cells and at the electric generator terminals shall be so constructed as to preclude possibility of wrong connections leading to the reversal of polarity and in addition an automatic device shall be provided to cut off power in the event of reversal of polarity owing to wrong connections either at the switch board or at the electric generator terminals.
8. Oxygen and hydrogen gas pipes shall be painted with distinguishing colours and in the event of leakage at the joints of the hydrogen gas pipe, the pipe after reconnection shall be purged of all air before drawing in hydrogen gas.
9. All electrical wiring and apparatus in the electrolyser room shall be of flame-proof construction or enclosed in flame-proof fittings and no naked light or flame shall be allowed to be taken either in the electrolyser room or where compression and filling of the gases is carried on and such warning notices shall be exhibited in prominent places.
10. No part of the electrolyser plant and the gas holders and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations no explosive substances shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.
11. No work or operation, repair or maintenance shall be undertaken except under the direct supervision of a person who by his training, experience and knowledge of the necessary precautions against risk of explosion is competent to supervise such work. No

electric generator after erection or repairs shall be switched on to the electrolyzers unless the same is certified by the competent person under whose direct supervision erection or repairs are carried on to be in a safe condition and the terminals have been checked for the polarity as required by Rule 7.

12. Every part of the electrolyser plant and the gas holders and compressor shall have a regular schedule of overhaul and checking and every defect noticed shall be rectified forthwith.

SCHEDULE VI(N)

[See rule 55]

MANUFACTURE, HANDLING AND USE OF BENZENE AND SUBSTANCES CONTAINING BENZENE.

1. Application :- This schedule shall apply in respect of factories or parts thereof in which benzene or substances containing benzene are manufactured, handled or used.

2. Definitions :- For the purpose of this schedule - (a) "substances containing benzene" means substances wherein benzene content exceeds 1 per cent by volume ;

(b) "substitute" means a chemical which is harmless or less harmful than benzene and can be used in place of benzene ;

(c) "enclosed system" means a system which will not allow escape of benzene vapours to the working atmosphere ; and

(d) "efficient exhaust draught" means localised ventilation, effected by mechanical means for the removal of gases, vapours and dusts or fumes so as to prevent them from escaping into air of any workroom. No draught shall be deemed to be efficient if it fails to remove smoke generated at the point where such gases, vapours, fumes or dusts originate.

3. Prohibition and substitutions : (1) Use of Benzene and substances containing benzene, is prohibited in the following process :- (a) Manufacture of varnishes, paints and thinners ; and

(b) Cleaning and degreasing operations.

(2) Benzene or substances containing benzene shall not be used as a solvent or diluent unless the process in which it is used is carried on in an enclosed system or unless the process is carried on in a manner which is considered equally safe as if it were carried out in an enclosed system.

(3) Where suitable substitutes are available, they shall be used instead of benzene or substances containing benzene. This provision, however shall not apply to the following process :-

(a) production of benzene ;

(b) process where benzene is used for chemical synthesis ; and

(c) motor spirits (used as fuel)

(4) The Chief Inspector-cum-facilitator may, subject to confirmation by the State Government, permit exemptions from the percentage laid down in sub-paragraph 2(a) and also from the provisions of sub-paragraph (3) of this paragraph temporarily under conditions and within limits of time to be determined after consultation with the employers and workers concerned.

4. Protection against inhalation.- (1) The process involving the use of benzene or substances containing benzene shall as far as practicable be carried out in an enclosed system.

(2) Where, however, it is not practicable to carry out the process in an enclosed system, the workroom in which benzene or substances containing benzene are used shall be equipped with an efficient exhaust draught or other means for the removal of benzene vapours to prevent their escape into the air of the workroom so that the concentration of benzene in the air does not exceed 10 parts per million by volume or 30 milligrams per cubic meter.

(3) Air analysis for the measurement of concentration of benzene vapours in air shall be carried out every 8 hours or at such intervals as may be directed by the Chief Inspector at places where process involving use of benzene is carried on and the result of such analysis shall be recorded in a register specially maintained for this purpose. If the concentration of benzene vapours in air as measured by air analysis, exceeds 10 parts per million by volume or 30 milligrams per cubic meter, the Manager shall forthwith report the concentration to the Chief Inspector stating the reasons for such increase.

(4) Workers who for special reasons are likely to be exposed to concentration of benzene in the air of the workroom exceeding the maximum referred to in subparagraph (2) shall be provided with suitable respirator or face masks. The duration of such exposure shall be limited as far as possible.

5. Measures against skin contact. - (1) Workers who are likely to come in contact with liquid benzene or liquid substances containing benzene shall be provided with suitable gloves, aprons, boots and where necessary-vapour tight chemical goggles, made of materials not effected by benzene or its vapours.

(2) The protective wear referred to in sub-paragraph (1) shall be maintained in good condition and inspected regularly.

6. Prohibition relating to employment of women and young persons. No women or young person shall be employed or permitted to work in any workroom involving exposure to benzene or substances containing benzene.

7. Labelling :- Every container holding benzene or substances containing benzene shall have the word "Benzene" and approved danger symbols clearly visible on it and shall also display information on benzene content warning about toxicity and warning about inflammability of the chemical.

8. Improper use of benzene:- (1) The use of benzene or substances containing benzene by workers for cleaning their hands or their work clothing shall be prohibited. (2) Workers shall be instructed on the possible dangers arising from such misuse.

9. Prohibition of consuming food, etc. in workroom:- No worker shall be allowed to store or consume food or drink in the workroom in which benzene or substances containing benzene are manufactured, handled or used. Smoking and chewing tobacco or pan shall be prohibited in such workrooms.

10. Instructions as regards risks:- Every workers on his first employment shall be fully instructed on the properties of benzene or substances containing benzene which he has to handle and of the dangers involved. Workers shall also be instructed on the measures to be taken to deal with in an emergency.

11. Cautionary notices:- Cautionary notices in the form specified in appendix and printed in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the workrooms where benzene or substances containing benzene are manufactured, handled or used.

12. Washing facilities, cloakroom and messroom :- In factories in which benzene or substances containing benzene are manufactured, handled or used, the occupier shall provide and maintain in a clean state and in good repair - (a) Washing facilities under cover, of the standard of at least one tap for every 10 persons having constant supply of water with soap and a clean towel provided individually to each worker if so ordered by the Inspector ;

(b) A cloakroom with lockers for each worker, having two compartments one for street-clothing and one for work-clothing; and

(c) a messroom furnished with tables and benches with means for warming food, provided that where a canteen or other proper arrangements exist for the workers to take their meals, the requirements of messroom shall be dispensed with.

13. Medical examination:- (1) Every worker who is to be employed in processes involving use of benzene or substances containing benzene, shall undergo. (a) a thorough pre-employment medical examination including a blood test for fitness for employment by a **Medical officer**; and

(b) periodical medical examination including blood test and other biological tests at intervals of every 6 months by the factory medical officer with the assistance of a laboratory.

(2) Certificates of pre-employment medical examination and periodical medical examination including test shall be entered in a health register in **the prescribed format**, which shall be produced on demand by an Inspector. (3) (a) If the factory medical officer on examination at any time is of the opinion that any worker has developed signs symptoms of benzene exposure, he shall make a record of his findings in the said register and inform the manager in writings.

FORMAT
Health Register

(In respect of persons employed in occupations declared to be dangerous operations under Section 87) Name of Certifying Surgeon :

(a) Mr..... From..... To.....
 (b) Mr..... From..... To.....
 (c) Mr..... From..... To.....

Serial No.	Works No.	Name of worker	Sex	Age (birth day)	Date of employment on present work	Date of leaving or transfer to other works	Reason for leaving, transfer or discharge	Nature of job or occupation	Raw material or by-product handled	Dates of Medical Examination by Certifying Surgeon	If suspended from work, state period of suspension with detailed reason	Recertified fit to resume duty on (with signature of Certifying Surgeon)	If certificate of unfitness or suspension issued to worker	Signature with date of Certifying Surgeon
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Note — (i) Column 8. Detailed summary of reasons for transfer or discharge should be stated
 (i) Column 11. should be expressed as fit/unfit/suspended.

(b) on receipt of the information from the factory medical officer, the manager of the factory shall sent the worker so found exposed, to the Medical Officer who shall, after satisfying himself with the findings of the factory medical officer and conducting necessary examinations, issue orders of temporary shifting of the worker or suspension of the worker in the process.

(4) The medical examination shall be arranged by the occupier or manager of the factory and the worker so examined shall not bear any expenses for it.

APPENDIX

CAUTIONARY NOTICE BENZENE AND SUBSTANCES CONTAINING BENZENE

1. Hazards: (a) Benzene and substances containing benzene are harmful.
- (b) Prolonged or repeated breathing of benzene vapours may result in acute or chronic poisoning.
- (c) Benzene can also be absorbed through skin which may cause skin and other diseases.
2. Preventive measures: (a) Avoid breathing of benzene vapours. (b) Avoid prolonged or repeated contact of benzene with the skin. (c) Remove benzene soaked or wet clothing promptly.
- (d) If any time you are exposed to high concentration of benzene vapours and exhibit signs and symptoms such as dizziness, difficulty in breathing, excessive excitation and losing of consciousness, immediately inform your factory manager.

(e) Keep all the containers of benzene closed.

(f) Handle, use and process benzene and substances containing benzene carefully in order to prevent their spillage on floor.

(g) Maintain good housekeeping.

3. Protective equipment: (a) Use respiratory protective equipment in places where benzene vapours are present in high concentration.

(b) In emergency, use self generating oxygen mask or oxygen or air cylinder masks.

(c) Wear hand gloves, aprons, goggles and gum boots to avoid contact of benzene with your skin and body parts.

4. First aid measures in case of acute benzene poisoning : (a) Remove the clothing immediately if it is wetted with benzene.

(b) If liquid benzene enters eyes, flush thoroughly for at least 15 minutes with clean running water and immediately secure medical attention.

(c) In case of unusual exposure to benzene vapour, call a physician immediately. Until he arrives, do the following :-

(i) If the exposed person is conscious -(aa) Move him to fresh air in open. (bb) Lay down without a pillow and keep him quiet and warm.

(ii) If the exposed persons is unconscious - (aa) Lay him down preferably on the left side with the head low. (bb) Remove any false teeth, chewing-gum, tobacco or other foreign objects which may be in his mouth. (cc) Provide him artificial respiration in case difficulty is-being experienced in breathing. (dd) In case of shallow breathing or cyanosis (blueness of skin, lips, ears, finger nail beds), he/she should provided with medical oxygen or oxygen carbon dioxide mixture. If needed, he/she should be given artificial respiration. Oxygen should be administered by a trained person only.